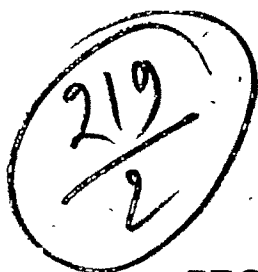


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OF THE DEPARTMENT
OF
LINGUISTICS**



**PROFESSOR CHINMOY DUTT
MEMORIAL NUMBER
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1997**



**Department of Linguistics
UNIVERSITY OF CALCUTTA
1997**

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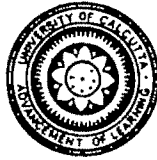
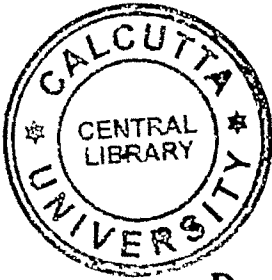
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PROFESSOR CHINMOY DUTT MEMORIAL NUMBER

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IN MEMORIAM

PROFESSOR CHINMOY DUTT

We deeply regret the sad and sudden demise of Dr. Chinmoy Dutt, formerly professor of the Department of Linguistics, University of Calcutta, who passed away on May 28, 1997 at his residence in Calcutta. He is survived by his only daughter and of course many students and colleagues. Professor Dutt was a renowned Indo-Iranian Philologist.

Professor Dutt was a man of quiet disposition, amiable, soft-spoken and dear to all his colleagues and students.

Professor Dutt was born on September 4, 1927. He was a brilliant student throughout his career. From the very beginning he showed a fascination for Iranian and Semitic studies. In 1948 he graduated from Surendra Nath College, Calcutta with Honours in Linguistics and stood first in the first class. He had Persian as one of the combination subjects. Then he obtained his M.A. degree in Comparative Philology from the University of Calcutta in 1950 and had Iranian and Semitic Philology as special papers. Professor Dutt worked for his Ph. D. on "The Persian Elements in Early New Indo-Aryan languages upto 1550 A.D." under the guidance of Professor Suniti Kumar Chatterji and was awarded the Ph.D. degree in 1955.

Professor Dutt was recipient of the University Jubilee Post-Graduate Scholarship from 1948-50 and the Khaira Research Scholarship in Linguistics from 1951-54. Prior to joining the University of Calcutta Professor Dutt worked as the Assistant Curator of the Moslem Antiquities of Archaeological Survey of India, Indian Museum, Calcutta for about two years. He joined the Department of Linguistics (the then Comparative Philology) in the year 1956. He served the department for more than 30 years. Apart from Comparative Philology Professor Dutt also taught in the departments of Pali, Sanskrit, Museology and Islamic History and Culture.

Professor Dutt possessed a rare quality of scholarship in Indo-Persian and Semitic (Arabic) philology and literature. He had special interest in Islamic Studies, Arabic Palaeography, Epigraphy, Calligraphy, Numismatics and Iranian literature - ancient, mediaeval and modern.

He contributed several monographs and articles on Muslim Epigraphy and Numismatics. He had also knowledge of the major New Indo - Aryan languages, viz. Sindhi, Panjabi, Western Hindi, Eastern Hindi, Marathi, Gujarati, Rajasthani, Urdu, Oriya, Maithili etc. In addition, he had knowledge of Sanskrit, French and German also.

Professor Dutt was elected a Fellow of the Royal Numismatic Society, London in 1966. He was also a visiting Professor of Oriental Studies and Manuscriptology in the Asiatic Society, Calcutta. With his death we lost a sincere scholar in the field of Indo - Iranian Philology.

May his soul rest in eternal peace !

A select bibliography of professor Chinmoy Dutt's writings is presented below.

A Select Bibliography

1. Books

- i) *A Complete Catalogue of Avestan and Persian Inscriptions in the Indian Museum, Calcutta*. Board of Trustees, Indian Museum. Calcutta
- ii) *Selections from Avesta & Old Persian*. The World Press (P) Ltd. Calcutta, 1973

2. Papers :

- i) A Persian Poet's Homage to Rabindranath Tagore *Indo-Iranica*, Vol 7, No. 2
- ii) A Note on Iranian Nominal Compounds. *Indian Linguistics, Jules Block Memorial Volume*, Vol. 14, 1954.
- iii) A New Arabic Inscription of Sultan Alaüddin Firus Shah of Bengal from Kalna. *Indian Museum Bulletin*, No. 3
- iv) Loan Words in Persian. *Indian Linguistics, Taraporewala Memorial Volume*, Vol. 17, 1957.
- v) A Note on Perso-Bengali Nominal Compounds. *Journal of the Department of Islamic History & culture*, March, 1960.
- vi) Evidence of Indian Loanwords in Arabic. *Bulletin of the Philological Society of Calcutta*, Vol. 1, No. 2, 1960.
- vii) On Persian Nisab's or Rhymed Vocabularies, *Indo-Iranica*, Vol 14, No. 1.
- viii) Perso-Arabic Vocables in the Works of "Raigunakar". *Bulletin of the Philological Society of Calcutta*, Vol 11, 1961.

- ix) A Note on the Origin of Urdu, *Journal of the Department of Islamic History and Culture*, 1961.
- x) Arabi Ke Hindi alasal alfaz (Urdu) *Mariff*, December, 1962.
- xi) Persian Elements in Bengali upto 1550 A D *Journal of the Department of Islamic History and Culture*, 1962.
- xii) Evidence of Sanskrit Loanwords in Arabic. *A special Issue of the Department of Islamic History and Culture*, 1962.
- xiii) Versified Arabic Inscriptions of Bengal. *Journal of the Department of Islamic History and Culture*, 1963.
- xiv) Promotion of Islamic Learning in Bengal during the Turko-Afghan Period. *Journal of the Department of Islamic History and Culture*, 1966.
- xv) Ancient Iranian Nominal Compounds. *Bulletin of the Philological Society of Calcutta*, 1967
- xvi) Foreign Word in Persian Vocabulary *Journal of the Department of Islamic History and Culture*, 1967.
- xvii) Indo-Iranian Relations *Iran Society, Silver Jubilee Celebrations, March*, 1970
- xviii) A Piece of Poetry in Old Persian. *Calcutta Orientalists*, 1974.
- xix) French Influence on Persian Vocabulary *Bulletin of the Department of Comparative philology and Linguistics, Suniti Kumar Chatterji Memorial Volume*, 3, 1978
- xx) Rhymed Vocabularies - Persian and Sanskrit. *Bulletin of the Department of Comparative Philology and Linguistics*, Vol 5, 1980
- xxi) Evidence of Perso-Arabic Loan words in Early Sindhi. *Bulletin of the Department of Comparative Philology and Linguistics*, Vol 7, 1982.
- xxii) Palaeographic Studies on the Pehlevi Alphabet its different varieties and its Origin (Tr) *Bulletin of the Department of Comparative Philology and Linguistics*, Vol. 8, 1983.
- xxiii) Degrees of Comparison in Iranian. *Bulletin of the Department of Comparative Philology and Linguistics*, Vol 9, 1984.
- xxiv) Evidence of Old Indo-Aryan Loanwords in Arabic *BDCPL* Vol. 10, 1985.
- xxv) Iranica, *Bulletin of the Department of Linguistics*, Vol. 11, 1986

SANSKRIT AND GREEK COMPOUNDS

SATYA RANJAN BANERJEE

Preamble :

Linguistically¹ or grammatically, *samāsa* (compound), one of the most important formative elements of words, belongs to the domain of morphology. It is to be remembered that *samāsa* is one of the ways by which a word is formed with another word(s) which are supposed to be syntactically connected. In a *samāsa* the basic factor is that the compounded words are syntactically related. The other formative elements of words are the primary (*kṛt*) and the secondary (*taddhita*) suffixes. The following table will give us the idea of the domain of morphology and the position of *samāsa* therein.

MORPHOLOGY

1. Formative elements	2. Parts of Speech	3. Grammatical Categories
1. Formation of words by	1. Noun	1. Number, 2. Gender, 3. Case,
a) primary (<i>kṛt</i>) suffixes		4. Case-endings including syncretism,
b) secondary (<i>taddhita</i>) suffixes	2. Adjective	5. Declension.
i) feminine suffixes		1. Comparison plus others as in noun, 2. Numerals.
2. By Samāsa		
i) Samāsānta suffixes	3. Pronoun	1. Deictic plus others as in noun
3. Parts of a word :	4. Verb	A. Primary Conjugation
a) base		I Finite : 1. Root, 2. Person, 3. Number
b) inflection (<i>sup/tiñ</i>)		4 Voice, 5. Mood, 6 Tense,
4. by various other ways :		7. Augment, 8. Reduplication,
a) Analogy		9. Aspect (<i>vikarapa</i>), 10. Stem-system,
b) Metanalysis		11. Personal Terminations,
c) Popular / Folk etymology		12. Conjugation.
d) Portmanteau words or blends	Indeclinables	II. Non-finite : 13. Infinitive,
e) Contamination	5. Adverb	14. Participle 15. Gerund.
f) Clipped words	6. Preposition	B. Secondary Conjugation :
g) Vulgarism	7. Conjunction	1. Passive, 2. Causative,
h) Spoonerism	8. Interjection	3. Denominative, 4. Desiderative,
		5. Frequentative / Intensive

1 A portion of this article was originally published by the University of Mysore in 1993. But the present dissertation is completely recast and rewritten with copious examples from Greek and Latin not incorporated in my previous book on Samāsa.

The Indian grammarians have given special attention to the formation of words by means of *samāsa*. As far as I know, Pāṇini (4th cent. B. C.) is the first grammarian who has discussed *samāsa* elaborately. The later Sanskrit grammarians have followed him. The Indian philosophers, Naiyāyikas and Mīmāṃsakas in particular, have laid the foundation on the meaning of *samāsa* (compounded words) as against non-compounded words. Later on, lots of small treatises were also composed only on *samāsa*. On the contrary, the first Greek grammarian Dionysius Thrax (2nd cent. B.C.) in his book *Hē Grammatikē Tekhnē*, divided in 25 sections, has not discussed *samāsa* at all, though in his sections XII *peri Aekheōs* (on words, *leksis*) and XIII *peri logoi* (on sentences) he has mentioned the meaning of some words where the compounded forms are also available. So also Marcus Terentius Varro (bet. 116/17-27 B.C.), the first Latin grammarian, who in his book *De Lingua Latina*, originally consisted of twenty-five books in three parts, such as, (i) etymology of Latin words (1-7 books), (ii) their inflexions and other changes (8-13 books) and (iii) syntax (14-15 books), has not also discussed anything on *samāsa*. It is only after the discovery of Sanskrit that the European scholars have devoted a chapter on compound in their respective treatises. Moreso, even some of the Sanskrit terms, such as, *dvigu*, *karmadhāraya*, *Bahuvrīhi* and many more are incorporated in their books side by side with their English equivalents. These English terms are neither Greek nor Latin in their origin. Though the English word compound has come from Latin *componere* (*com-*, *together* and *ponere*, *to put*) meaning 'to arrange or put together' which became in old French *compondre* > MF. *compon-* > ME. *compounen* > Mod. E. *compound* (a *pt. pp.* form) original meaning being 'to mix or unite (various ingredients) in one mass or body', and from there in grammar it is used in the sense of 'putting two or more words into one', in reality compound has no place in English grammar. But this does not mean that the English language is devoid of compound. For example, a *blackbird* is always distinguished from a *black bird* (cf. Sanskrit *kṛṣṇasarpa*, 'a cobra', and *kṛṣṇaḥ sarpaḥ* 'a black snake'). So also in English, '*forget-me-not-flowers*' '*do-it-yourself-machine*' and so on. However, as the concept of *samāsa* is not available in Greek and Latin authors, I will have to depend on the material found in Indian soil. But at the same time I will try to show how the Indian concept is equally applicable to Greek and Latin.

According to Indian authors, the mere congegration of words into one form will not make any *samāsa*; there must be some amount of syntactical connection (*sāmarthya*) between the compounded words. If the words are not syntactically related to each other, they cannot form a *samāsa*. This is the most important thing of forming a word by means of *samāsa*. Hence the dictum of Pāṇini is *samarthaḥ padavidhiḥ* (II.1.1).

The general meaning of this *sūtra* is "a rule which relates to inflected words (i.e. *padas*) is to be understood to apply to those *padas* the senses of which are *syntactically connected*."

The *padavidhi* (= *padānām vidhiḥ*) means "a rule relating to *padas* ('inflected words')". The *vidhi* means (*vidhīyate iti vidhiḥ vi-dhā + ki*) 'that which is ordained', i.e. a 'rule' (*vidhi*). Therefore, the rules that are ordained with regard to *padas* are *padavidhi*.

In the commentaries of Pāṇini, the *padavidhis* are explained as of three types : *samāsa-vidhi*, *vibhakti-vidhi* and *parāṅgavad-bhāva-vidhi*.

Samāsa-vidhi means 'rules relating to compounding of words (*samāsa*)'. *Vibhakti-vidhi* means 'rules relating to *vibhakti* or the application of declensional and conjugational suffixes; whereas *parāṅgavad-bhāva-vidhi* means 'the rule by which one word is considered as if it has become a constituent member of another word.'

The word *samartha* in the above aphorism means 'capable' i.e. 'syntactically related'. It means that when a word is capable of explaining the sense of a sentence on analysis is called *samartha*. This idea of *samartha* can be explained in two ways : *vyapekṣā* and *ekārthībhāva*.

Vyapekṣā-sāmarthya means "words depend upon the words of a sentence as connected in sense"; e.g., *rājñāḥ puruṣaḥ* ('king's man') where the inflected words are related to each other in sense. On the contrary, *ekārthībhāva sāmarthya* means "a single word is capable of expressing the sense of a sentence on analysis", e.g. *rājapuruṣaḥ* ('a king's man'), i.e., a single compounded word is an *ekārthībhāva sāmarthya*. In the case of *vyapekṣā*, the inflected words *rājñāḥ puruṣo'svaḥ* ('king's man and horse') are possible; but in the *ekārthībhāva* this addition of word after *rājñāḥ puruṣaḥ* is not possible.

Here a question may be raised, if *samāsa* is possible only with words which are syntactically related, then how the sentences like *devadattasya guruputraḥ* ('the son of the preceptor of Devadatta'), *devadattasya dāsabhāryā* ('the wife of the slave of Devadatta'), *kim odanaḥ s'ālinām* ('is this rice of salī-grains?') etc. are to be explained.

All these above mentioned usages are to be considered correct, because they convey the sense that is desired to be conveyed by a sentence (*sāpekṣatve pi gamakatvāt samāsaḥ*). It is a kind of loose compound where the related words are detached from the main compounded words. Patañjali (2nd cent. B.C.) has also said — 'where the sense is understood, there will be a *samāsa*, e.g. the family of Devadatta's preceptor (*yatra gamako bhavati, bhavati tatra vṛttiḥ tad yathā Devadattasya gurukulam—Mahābhāṣya* under Pā. II. 1.1)

In this particular case, the modern idea of compound may be compared. C. D. Buck has also expressed almost the similar idea in connection with English composition. He says—"Mere semantic unification of a group of words may constitute a sort of psychological composition, but not necessarily linguistic composition in any reasonable use of the term. Thus in current English idiom *house of ill fame* is as much a unit in sense as its equivalent *brothel*, but common sense rebels against calling it a compound. Yet this would be the logical result of the extension which some scholars give to the notion of composition." (*Comparative Grammar of Greek and Latin*, Chicago, sixth impression, 1955, p. 353).

The next point which is related to *samāsa* is the question of its meaning attached to the compounded words. The Indian grammarians (as well as the logicians) think that in a compound word (*samāsa*) an 'additional sense is attached to the word'. Whether a *samāsa* has got an 'additional sense' or not can be tested by using an adjectival word before the compound; e.g., *nirdhanaḥ rājapuruṣaḥ* 'a penniless king's man'. In this sentence penniless is attributed to whom. Who is penniless? The king or king's man? This additional meaning is subtle, but still it exists. It is in this connection that the technical term *vṛtti* is used to indicate that 'additional sense', and that is why, *samāsa* is regarded as one of the *vṛttis*. Patañjali

in his *Mahābhāṣya* (under Pā. II. 1.1) has defined *vṛtti* as *parārthābhīdhanam vṛttiḥ* which means "the power of expressing a sense which is different from what was originally inherent in the word". The purpose of this definition is to indicate that 'when a word undergoes a *vṛtti*, it acquires an additional sense. For example, when we say *rājñāḥ puruṣaḥ*, it refers to the meaning which it contains in the word, but when we say *rājapuruṣaḥ* it gives an additional meaning 'the man of the king', i.e., not any man from the royal family, but a particular one having affiliated with king. Here in this compound *rājapuruṣaḥ*, the word *rājan* does not really mean 'the king', because if we place any adjective before it, such as, *nirdhanaḥ rājapuruṣaḥ*, the poverty does not refer to the king, but to the man (*puruṣaḥ*). So in a compounded word an extra meaning is attributed to the word. It should be noted that 'this additional sense always refers to something other than the original connotation of the word.

The purpose of Samāsa

samāsa has, at least, three purposes or utility - *aikapadyam aikasvaryam eka-vibhaktikatvaṃ ca samāsa-prayojanam*. The basic idea of *samāsa* is an abridgement of the expanded words (*samā sānām samāsaḥ saṃkṣepa iti yāvat*). The advantage of *samāsa* is to make a lengthy sentence into a single complete form (*ekapadībhāva*). In a sense lots of sentences can be reduced into a single word by means of *samāsa*.

The *samāsa* brings the word into a single system of accent (*aikasvaryam*). This uniformity of accent is due to the easeness of pronunciation of a compound word.

The *samāsa* also brings the series of words into a single case-termination; e.g., *rājñāḥ puruṣaḥ* is *rājapuruṣaḥ* where the sixth case-termination in *rājan* is lost in *rājapuruṣaḥ* and renders the whole word into a single case ending. In this particular case Greek and Latin have some difference. In Greek the vowel *o* and in Latin the vowel *i* are inserted; e.g. Gk. *diko-graphos* 'writer of law-speeches'; Lat. *caeli-cola* (∠ *caelu* - *cola* or *caelo-cola*) 'dwelling in heaven'. So also in English, *hand-craft* is *handicraft*.

Classification of Samāsa

Samāsa can be classified from different points of view. But following the tradition of Pāṇini, *samāsa* is classified in the following manner :

Main <i>Samāsas</i>	Sub-varieties
1. <i>Avyayībhāva</i> (Indeclinable)	1. <i>nitya</i> : a) <i>asvapada-vigraha</i> 2. <i>anitya</i> b) <i>avigraha</i>
2. <i>Tāpuruṣa</i> (Determinative)	1. <i>tāpuruṣa</i> proper (1-7th). 2. <i>upapada</i> 3. <i>prādi</i> , 4. <i>gati</i> 5. <i>nañ-tat</i> , 6. <i>ekades'ivat</i> , 7. <i>karmadhāraya</i> , 8. <i>madhyapadalopī</i> , 9. <i>mayūravyaṃsaka</i> , 10. <i>upamāna</i> , 11. <i>upamita</i> 12. <i>rūpaka</i> , 13. <i>dvigu</i> .
3. <i>Bahuvrīhi</i> (Attributive)	1. <i>samānādhikaraṇa</i> , 2. <i>vyadhikaraṇa</i> , 3. <i>vyatihāra</i> , 4. <i>madhyapadalopī</i> .
4. <i>Dvandva</i> (Copulative)	1. <i>samāhāra</i> , 2. <i>itare tara</i>

This is, in general, the different types of *samāsa*. But sometimes the classification is made on the following outlook. *Sāmsa* is

(i) *luk* or *aluk*, (ii) *nitya* and *anitya*, (iii) *nitya*, *anitya* and *vikalpa*, (iv) *avyayībhāva*, *tāpuruṣa*, *bahuvrīhi* and *dvandva*. (v) Sometimes the position of a word and its meaning are emphasized, such as, *pūrvapadārtha-pradhāna*, *uttara-padārtha-pradhāna*, *anyapadārtha-pradhāna*, *sarva-padārtha-pradhāna*, *madhyapadārtha-pradhāna* and *antya-padārtha-pradhāna*. (vi) Sometimes *sāmsa* is classified as six kinds : *dvigu*, *dvandva*, *avyayībhāva*, *karmadhāraya*, *bahuvrīhi* and *tāpuruṣa*. (vii) Sometimes *sāmsa* is considered as seven types : in addition to the above six, *nitya* is added to it; (viii) later classification of *sāmsa* is of 28 types : 8 types of *tāpuruṣa*, 6 types of *karmadhāraya*, 6 types of *bahuvrīhi*, 2 types of *dvigu*, 4 types of *dvandva*, 2 types of *avyayībhāva*.

Description of the Compounds :

1. Avyayībhāva = Adverbial or Indeclinable.

In the *avyayībhāva* (adverbial or indeclinable) compounds the first member must be either a preposition (= *upasarga*) or an adverbial prefix, and the last member will take the form of a neuter accusative case e.g., *yathāśakti* 'according to one's strength', *pratidiśam* 'in every quarter'.

The adverbial prefix with which these compounds are formed is *sa*, a contracted form from *saha* e.g., *sakopam* 'with anger', *sādaram* 'with respect', *sāgni* 'with fire' etc.

This sort of indeclinable compounds is also found in Greek and Latin. For example, Gk. *sun-doulos* 'fellow slave', *hup-arkhos* 'under officer', *epi-khalos* 'covered with bronze', *en-theos*, 'having god within', *anti-bion* 'opposing force to force', *para-khrema* 'on the spot, 'straightway', *huper-moron* 'beyond fate', etc. The Latin examples are *admodum* 'up to the measure', *affatim* (< *adfati*) 'enough', *obviam* 'on the way', *per-facilis* 'very easy', *vē-cors* 'without sense', 'senseless'.

The difference between Greek-Latin adverbial compounds with Sanskrit is this that in Sanskrit the word ends with neuter accusative case, whereas in Greek-Latin the original gender is retained.

The sub-varieties of adverbial compound are not discussed here.

2. Tatpuruṣa = Determinative.

When a compound consists of two members and the first part *determines* or modifies the second part, that is called *Tatpuruṣa*. *Tatpuruṣa* literally means *tasya puruṣaḥ* 'his person'. In the determinative compound, the first part would be of different case from the second. That is to say, the first or the second part stands in the sense of an oblique case to the other part. Both Sanskrit and Greek are analogous to this principle. For example,

accusative : Skt. *svargaprāptaḥ* 'one who has obtained heaven (*svargaṃ prāptaḥ*)', Gk. *logo-graphos*, speech writer (*logos graphōn*, 'one who writes speech').

Instrumental : *lobha-mohita* (= *lobhena mohitaḥ*) 'beguiled by avarice', *rāja-pūjitaḥ* (*rājñāḥ pūjitaḥ*) 'honoured by king'; Gk. *kheir-o-poiētos* (*kheresi poiētos*) 'made by hand', *khrusodetos* (*khrusoi detos*) 'bound with gold'. These can be compared with English *thunder-struck*, *star-sown*, *storm-swept* etc.

Dative : Skt. *pādodakam* 'water for the feet', *yūpadāru* 'wood for sacrifice', *śaraṇāgataḥ* (*śaraṇāya āgataḥ*) 'come for protection'. So also in Greek *iso-theos* (= *isos theōi*) 'godlike'. Similar types of examples are also found in English; e.g., *blood-thirsty*, *church-goer*.

Ablative : Skt. *rājya-bhraṣṭaḥ* (= *rājyād bhraṣṭaḥ*) 'fallen from the kingdom', *bhavad-bhayam* 'fear of you', *bhavad-anyaḥ* 'other than you'. So also in Gk. *anemo-skepēs* 'sheltering from the wind'; this can be compared with English *land-breeze*, *sea-breeze*.

Genitive : Skt. *samudra-tīram* (*samudrasya tīram*) 'sea-shore', *arthāgamaḥ* 'acquisition of wealth'. Gk. *strato-pedon* (*stratou pedon*) lit. 'ground on which an army is encamped' i.e., 'camp', *aksio-logos* 'worthy of mention'. Compare English *ringmaster*, *law-officer*, *jestbook* etc.

Locative : Skt. *pañka-magnaḥ* (= *pañke magnaḥ*) 'sunk in the mud'. Gk. *oiko-genes* (*en oikōi genomenous*) 'born in the house'; so also *hodoi-poros* 'way farer'. Compare English *heart-sick*.

The pattern of determinative compounds is also available in Latin e.g. *auri-eula* 'the lobe of the ear', *auri fodina* 'a gold-mine', *manupretium* 'earned by hand', i.e. 'wages', *matri-cidium* (cf. English *matricide*) 'the slaying of a mother by her son', *parri-cida* (for *patri-cida*) 'one who murders a parent'.

The English language furnishes innumerable examples of *taṭpuruṣa* compound; e.g. *moth-eater*, *door-mat*, *writing-pad*, *writing-master*, *snow-drift*, *ink-pot*, *ink-stand*, *priest-ridden* and so on.

It should be noted in this connection that the case relation as existing in these above mentioned compounds is purely logical and necessary for eliciting the sense involved in these compounded words.

3. *Karmadhāraya* = Descriptive.

Pāṇini includes *karmadhāraya* as a sub-class of *Taṭpuruṣa*. So in the *karmadhāraya* both the members are in the same case relation, i.e. they have the same case when dissolved. In the case of the *taṭpuruṣa* the attributive member has one of the oblique cases when dissolved into different parts, whereas in *karmadhāraya* both the members are in the same case when dissolved. So in the

Descriptive compound the first member may be an adjective, participle or a noun. For example, *sādhū-janaḥ* (= *sādhūḥ janaḥ*) 'a good man', *puṇya-karma* 'a holy act', *saṃskṛtuktiḥ* 'polished speech' etc. So also in Greek, *megalo-mētēr* 'grand-mother', *megalo-noin* 'great thought', *iso-podon* 'a level ground' 'a flat', *hemi-kuon* 'half-dog'. In Latin we have *decemviri* 'a board of ten men', *meri-dies* (for *medi-dies*) 'midday', *sacri-portus* 'a sacrificing haven', *semi-deus*, 'half-divine' etc. Parallel compounds are also found in English, e.g., *holiday*, *good-sense*, *good-will*, *black-guard*, *ill-nature* etc.

4. *Bahuvrīhi* = Attributive.

The *Bahuvrīhi* compounds are generally the epithets of other nouns. In this compound the first part defines the second, but the whole compound is an adjective expressing a quality. In this kind of compound the idea of having (Gk. *ekhōn*) is to be understood, e.g., *prāptodako grāmaḥ* (= *prāptam udakam yaṃ grāmam*) 'a village to which the water has come'. This *bahuvrīhi* compound is abundantly found in Sanskrit. In Greek also we have lots of examples of *bahuvrīhi* compound. e.g. *argurotoksos* 'having a silver bow', *makro-kheir* 'having long arms', *theo-eides* 'having the appearance (*eidos*) of a god', i.e. godlike, *tethrippos* 'having four horses' and so on. In Latin the examples are *bi-pēs* 'two-footed' *magn-animus* 'having great soul' i.e. 'great-souled', *ūn-oculus* 'one-eyed'.

5. *Dvandva* = Copulative

Copulative compounds are formed by two or more nouns or adjectives. The compounded forms are either singular or dual or plural depending on the members of the compounded words; e.g. *mṛga-kākau* 'a deer and a crow', *bhāryā-patī* 'wife and husband', *sukha-duḥkhe* 'pleasure and pain' etc.

In Greek and Latin also we have examples of copulative compounds, e.g. in Greek, *batrakho-muo-makhia* 'frog-mouse war', *zōo-phuton* 'animal and plant'. *Zoophyte* is, therefore, a kind of *Dvandva* compound. In Latin, we have *su-ovi-aurilia* 'pig-sheep-bull sacrifice', a *Dvandva* compound. The English forms like *plano-convex*, *convexo-concave* are examples of copulative compounds.

In conclusion it can be said that compound (= *samāsa*) is a vital part of a language, and Greek and Latin and also English, are

no exceptions to that. And in this respect, both Greek and Latin are analogous to Sanskrit. The present essay is just an example to the fuller study of the subject.

Bibliography

[Examples are collected for my dissertation from the following books].

1. Buck, C. D. *Comparative Grammar of Greek and Latin*, The University of Chicago Press, Chicago, sixth impression, 1955.
2. Chatterjee, Kshitish Chandra, *Greek Proverbs* for students of Sanskrit, Calcutta.
3. Gildersleeve, B L. - *Latin Grammar*, London, 1903.
4. Monier-Williams, M. - *A Practical Grammar of the Sanskrit Language*, The Clarendon Press, Oxford, 1878.
5. Smyth, H. W. - *Greek Grammar*, Harvard University Press, Massachusetts, ninth printing 1974.
6. Wright, Joseph - *A Comparative Grammar of the Greek Language*, Oxford, 1912.

NOTES ON HITTITE SENTENCE STRUCTURE

SUBHADRA KUMAR SEN

Hittite, the oldest member of the Indo-European family of languages, is preserved only in prose. The oldest Hittite text, the Anitta tablet, is dated 1800 B.C. Hence Hittite plays a very crucial role in any study of Proto-Indo-European syntax which understandably has attracted the attention of all who are interested in Indo-European linguistics. Since Friedrich gave an outline of the Hittite syntax in his *Elementarbuch* (1960) no body has made any attempt to pursue that line. It is, however, true that individual scholars have worked on certain segments. Consequently Friedrich's work is our only source of information regarding Hittite syntax. Friedrich's outline is sound in data and thorough in analysis but his self-imposed design of the book did not allow him to be comparativistic in his treatment of the subject. Had he done so that chapter of *Hethitisches Elementarbuch*(I) would have been every Indo-Europeanist's dreambook!

It is expedient that every enquiry should at the very outset state unconditionally, its objective to avoid the pit-falls of unnecessary misunderstanding. The objective of this survey is strictly limited: to chart one subtype of sentences found in Hittite and juxtapose the samples with the other IE languages and thus determine the extent of similarity between Hittite and other IE languages. The object of the present enquiry is the nominal or verbless affirmative simple sentences.

Hittite texts show such nominal sentences:

- | | | | |
|-------|------------------------------|-----------|----------------------|
| 1. | attas | assus | (Friedrich:1960:117) |
| | nom. | adj. | |
| | father | good/dear | |
| i.e., | the-father (is) good/a dear. | | |
| 2. | istappuli-set-a | sulias | (St. Bo. T. 8:38:35) |
| | nom. | -nom.-cj. | gen. |
| | (enclitic poss. pron.) | | |
| | cover-its-and | made | |

i.e., and its cover (is made) of-lead or it (has) a leaden cover.

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3. LUGAL-us nuwa Zatapi (ibid. 24:15)
 =hasus
 nom. ptcl. loc.
 (adverbial)
 king still in-the city (of) -Zatapa
 i.e., the king (is) still in Zatapa city.
4. uk-wa atti-mi UL assus (HED1/2p.225)
 pron. quo-dat. dat. neg. adj.
 tative (enclitic poss. pron)
 I quote to-father-my not favourite
 i.e., I (am) not dear to my father.
5. MU.KAM-za-wa-tà ser tepawessanza (AM4:4:3:23)
 nom. quota-dat. ptcl. adj.
 tive (encli pres. part
 tic pron)
 the-year quote for-you becoming-short
 i.e., the year (has) become-short for you.
- From Hittite we can now turn our gaze to other Indo-European territories.
- Indic evidence:
6. pāpo nṛṣadvaro janaḥ (Ait. Br. 7:33:2)
 nom. adj. nom.
 evil idle the-man
 (lit. a man who whiles away his time sitting among men)
 i.e., evil (befalls) the man who wastes his time sitting (idle) among men.

7. satyam devā anṛtam manuṣyāḥ (ŚB. 1:1:1:4)
 adj. nom. adj. nom.
 true gods false men

i.e., gods (are) true men (are) false.

8. yoṣā va' apo vṛṣāgniḥ (ibid. 1:1:1:18)
 nom. ptcl. nom.nom.-nom
 woman indeed water male-fire

i.e., woman indeed (is) water (and) male (is) fire.

To this cryptic type of evidence one can add a whole Rigvedic hymn :

9. iyam vediḥ pari antaḥ pṛthivyā
 this altar boundary of-the-earth
 ayam yajño bhuvanasya nābhi
 this sacri of the
 fice universe
 ayam samo vṛṣṇo aśvasya reto
 this soma of- of- semen
 virile horse
 brahmāyam vācaḥ paramam vyoma
 invoker of- supreme space
 this speech

i.e., this altar (is) the boundary of the earth/this sacrifice (is) the centre of the universe/this soma (is) the semen of the virile stallion/this invoker of speech (is) the supreme space. The entire hymn (RV. 1:164:35) is constructed without a single finite verb form.

From Indic we can turn our attention to other areas. We consider Iranian (Avestan and Old Persian), Greek and Gothic evidences.

Iranian evidence :

Avestan

10. hātām hvō aojištō (Taraporewala p.44)
 gen. nom. adj.
 (pron) (super)

of- he the-strongerst
existing

i.e., he (is) the strongest of (all) existing (beings)

11. yānīm manō yānīm vacō yānīm šyaoθanān
nom. nom. nom. nom. nom.

(adj.)

worth- mind worth- speech worth- deed
following following following

ašaono Zaraθuštrahe (ibid. p. 23)

gen. gen.

of-holy of-Zarathustra

i.e., worth-following (is) mind (=thought), worth-following (is)
the speech, a worth-following (is) the deed of holy Zarathustra.

12. avaēsām noit viduyē (ibid. p. 44)

gen. ptcl. infin.

neg. dat.

of-those- no for-knowing

yonder

i.e., of those yonder no (one) (has) knowledge.

Old Persian

13. adam kuruš xšāya/θiya haxāmanišiya (Sen:1941:1)
nom. nom. nom. nom.

I Cyrus the-king the-Achaemenian

i.e., I (am) Cyrus the king the Achaemenian.

14. adam navama (ibid. p.4)

nom. nom.

I ninth

i.e., I (am) the ninth (in succession)

15. ima tya manā krtam bāxtriya (ibid. p. 51)
 nom. nom. gen. pple. loc.
 this that of-me done in Bactria

i.e., this (is) that (was) done by me in Bactria

Greek evidence :

A. Homeric evidence

16. Letous kai dios hwios (Iliad 1:9)
 gen. cj. gen. nom.
 of-Leto and of Zeus son

i.e., (he was) the son of Leto and of Zeus.

17. par emoi ge kai alloi (ibid 1:174)
 prep. dat. ptcl. cj. nom.
 with me indeed also others

i.e., others (are) indeed with me.

18. nesos dendreessa (Odyssey 1 : 51)
 nom. nom.
 island full-of-trees

i.e., the island (is) full of trees.

Mycenaeae

19. qo-te-to ai-ki-pa-ta o-pi ta-ra-ma-to qe-to-ro-po-pi
 o-ro-me-no
 nom. nom. prevb. gen inst. pres.part.

Qotero the goat-herd over of-Thala- the-cattle watching

i.e., Qotero, the goat-herd, (is) watching over the cattle of Thalamatas (Ventris-Chadwick² p. 170)

Gothic evidence : Inclusion of the Gothic evidence needs justification.

The justification is so simple that it usually escapes our attention.

The Gothic evidence is synchronic whereas the data of the other IE languages are diachronic in character.

20.	hwa	uns	jah	pus	(Matthew 8 : 29)
	nom.	dat.	cj.	dat	
	what	to-us	and	to-you	

i.e., what (is) to us and to you.

To these examples one can also add such Latin sentences like *nihil bonum nisi quod honestum* or *philosophia vitae magistra*. The cumulative evidence shows that the deletion of the verb *Hes-* was a common Indo-European practice, particularly in the present tense. But are there no exceptions? What happens in the past tense? These questions will be answered, hopefully, in not too distant future.

Abbreviations

Friedrich 1960	:	Friedrich, J Hethitisches Elementarbuch (BdI), Carl Winter, Heidelberg
St. Bo. T. 8	:	Studien zu den Bogazkoy-Texten (Heft 8), Ein althethitisches Ritual für das Königspaar, Otten & Soucek, Otto Harrassowitz, Wiesbaden
HED 1/2	:	Hittite Etymological Dictionary (Volume 1/2), Jaan Puhvel, Walter de Gruyter, Berlin 1984.
AM	:	Annals of King Mursilis.
Ait. Br.	:	Āitareya Brāhmaṇa.
ŚB	:	Śatapatha Brāhmaṇa.
Taraporewala	:	The Divine Songs of Zarathustra, I.J.S Taraporewala, Hukhta Foundation, Bombay, 1993
Sen 1941	:	Sukumar Sen, Old Persian Inscriptions of the Achaemenian Emperors, Calcutta University, Calcutta.
Ventris-Chadwick ²	:	Michael Ventris & John Chadwick, Documents in Mycenaean Greek, Cambridge UP, Cambridge, 1973.

VOWEL HARMONY IN BENGALI

MRINALKANTI NATH

Vowel harmony is generally regarded as an assimilatory process affecting classes of vowels and conditioned by vowels (and less often by semivowels) in the neighbouring syllable. Vowel harmony though basically a (morpho-)phonological change, in some languages it is conditioned by grammatical categories, e.g., in Telugu, where "the type and direction of change are determined by grammatical categories, though the very process is conditioned by vowels" (Ramarao 1976 : 25). A similar, but not identical, state of affairs is obtained in the Standard Colloquial Bengali (henceforth, SCB). In a number of cases in the SCB, vowel harmony is conditioned by the grammatical information, it is also blocked by the same machinery. Bengali shows vowel harmony conditioned by grammatical categories in the verbal forms and also in a number of derivative words. Though the very process is conditioned supposedly by the immediately neighbouring vocalic or semivocalic segments, but the phonetic make-up of the conditioning segments have nothing to do with the harmonic process, only the grammatical information contained in the phonetic entity is relevant for the changes in the stem vowels. We will see in course of our discussion that some of those vowels that we require for grammatical conditioning of vowel harmony are different from those which normally play the roles of harmonisers in Bengali vowel harmony, and the directions of changes are also altogether different. They do not conform to the general pattern of the harmonic changes.

Though Bengali utilises this process very extensively, it has received little attention from the scholars. Chatterji in his magnum opus has dwelt on this process in a traditional framework (Chatterji 1926 : 395-421). His treatment is very brief, but it offers some insightful observations. Sarkar (1983-84 : 51-55) in a very small but illuminating paper has addressed the issue. But it is impossible to describe and formalise the whole gamut of changes occurring in Bengali vowel harmony in few pages. Moreover, all the scholars either of traditional or of modern persuasions, who have dealt with vowel harmony, considered this to be a purely phonological process, although they have occasionally given examples of

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morphophonemic aspects of changes and were aware of working of grammatical machinery operated in the changes. Sarkar (1983-84) has paid his whole attention only to phonological criteria, so also did Basu (1975 : 142-45).

Bengali vowel harmony is both synchronic and diachronic in nature. This is not like Turkish vowel harmony which operates purely at synchronic level. Like other grammatically conditioned changes, Bengali vowel harmony can also be explained from a diachronic perspective as well.

Vowel harmony generally does not alter the arrangement of the phonemes in a language, that is, it does not bring about any change in the structural relation of the units in the language. It does not introduce any contrast new to the phonemic inventory of the language, which involves creation of a new phoneme in the language. For Bengali, we can assume (and it is my hunch too) that a new phoneme has been introduced in the SCB as a result of morphophonemic changes caused by vowel harmony. Later on other changes have contributed to the establishment of that phoneme. We will discuss this point in a moment.

We have tentatively preferred the old nomenclature *vowel harmony* and not *vowel height assimilation* as suggested by Anderson (1974). Sarkar (1983-84), however, is in favour of replacing the old term, and has accepted for Bengali the term proposed by Anderson.

In Bengali vowel harmony, hardly anything takes place that is *assimilatory* or *harmonic* in nature, vowels are either raised or lowered by the neighbouring vowel or semivowel. It is only a raising-lowering phenomenon. For this reason, we did feel that the widely accepted term, an unhappy one, to be replaced by a better and suitable one to capture the phenomenon. In the absence of a satisfactory term, in our discussion we have used the widely prevalent term, *vowel harmony*. We propose for Bengali an alternative term: *vowel attraction*. In Bengali vowel harmony *harmonised* (affected) vowels are either raised or lowered by the influence of the *harmoniser* vowel (*attractant*), keeping height distance with the harmonised (*attracted*). The affected (*attracted*) vowels are rarely brought into the same height of the *attractants*. So they generally do not become harmonious with the *attractants*.

Bengali Vowels

Before going into detail of the Bengali vowel harmony, let us look at the vowels of the SCB.

The Bengali vowels show one of the most unmarked vowel systems with two high vowels, two mid vowels and three low vowels. Among the low vowels, one is front, the other is back, and the third one is central (-front, -back). The Bengali vowel diagram is given below:

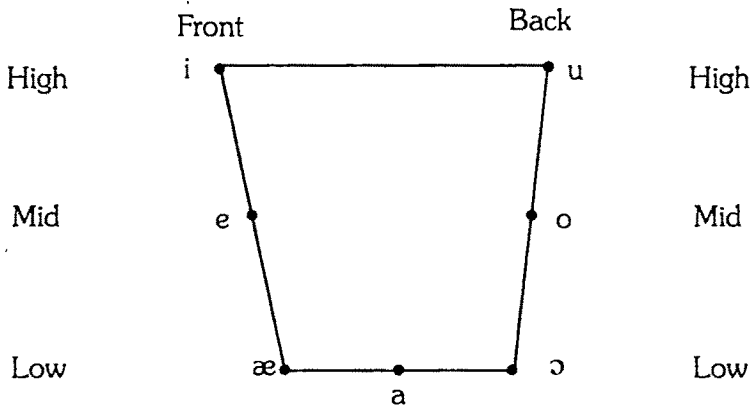


Fig. 1. Bengali Vowel diagram

The seven vowels as we obtain in the present day Bengali were not available in the early 19th century. At that time, in all probability, Bengali had a "skewed" system of vowels with six vowels. The phoneme /æ/ was absent at that time. I had a hunch that /æ/ resulted initially from phonological and morphophonemic changes like the following: /dekh/~/dækh/ 'see', /ek/~/ækh/ 'one' etc. Initially, this was a mere change in pronunciation, with no structural significance, but which later acquired structural significance through some unrelated phonological changes. These changes paved the way for the creation of the new phoneme /æ/ as there was already some structural pressure to fill the vacant slot on the low front position. Sanskrit words with word initial Cyā- and word medial -Cyā- started getting pronounced as -Cæ- and -CCæ- respectively. This pronunciation, again was reinforced by the English loan words having a phoneme /æ/. With the availability of /æ/, originally

homophonous words like /bela/ 'shore' and 'time' came to be distinguished semantically as well as phonologically with the changes in pronunciation of the two words as [bela] 'shore' and [bæla] 'time' respectively, thus making a perfect minimal pair. Now, we have many more minimal pairs and near-minimal pairs to distinguish these two vowels as two distinct phonemes in Bengali, although they are still related by phonological and morphophonemic alternations in the verbal and nominal stems. Thus, with six vowels, Bengali did not offer an unmarked system at an earlier state of the language. Structural pressure from the front mid position was at work to make the asymmetric system a symmetric one. And, it was vowel harmony that was initially responsible for the phonemic change. Later other factors contributed to reinforce the change. Now, we have an unmarked system of vowels.

Harmonised and Harmoniser Vowels

In Bengali, all the seven vowels undergo the harmonic changes. Out of these, conditioning (harmonising) vowels are mainly four: these are /a, i, u, o/. In addition to these, a front high semivowel /y/ also acts as a harmoniser for a number of words having -Cy- clusters at the surface levels, and also in some other clusters which are felt to be having -Cy- clusters at the underlying levels. Of these four vowels, grammatically conditioned vowel harmony utilises /a, o/, and also another vowel /e/ which is not employed in (morpho-) phonological vowel harmony. In these cases, the vocalic segments /a, e, o/ do not behave like phonological entities or segments, so these can be characterised as [-segment]. Thus, ultimately, segments as harmonising elements are five in all: four vowels /a, i, u, o/ and the semivowel /y/. The vowels /a, o/ act in some cases as [+segment], in others, as [-segment].

We have already said that Bengali vowel harmony is the interaction of the vowels/semivowels between the two consecutive syllables or between two immediately neighbouring vowels. The vowels are generally raised or lowered by the segments of unequal heights. The net outcome is raising or lowering by one height only, similarly, the back vowels, in the back direction. The low central vowel can be raised on the either direction depending on the frontness or the backness of the conditioning vowels. The high

vowels raise the low and the mid vowels by one height. The low central vowel lowers the high vowels to the mid position. The semivowel /y/ raises or lowers the immediately preceding vowels like other harmonisers, by one height only.

In the cases of grammatical conditioning of vowel harmony, only raising takes place, irrespective of the conditioning vowels: it may be the vowels of the same height or of uneven height, e.g., /lekh+echo/→/likhecho/ 'you have written'; /kəɾ+lām/→[korlām] 'I/we did'; /tol+to/→[tulto] 'he/they used to lift'; /dækh+e/→[dekhe] 'having seen'; /lekh+lām/→[likhlām] 'I/we wrote'; /tol+lām/→[tullām] 'I/we lifted'; /dækh+bo/→[dekhbo] 'I/we will see'; etc. In these cases, the conditioning vowels do not matter for the change, the changes are induced by the grammatical category in the conditioning elements.

The cases of vowel harmony in the SCB are mainly of two types: *perseverant* (=progressive) and *anticipatory* (=regressive). In the former type, an earlier segment influences the latter segment (intervened by null to (maximum) two consonants) in the word or in the stem, and in a few cases in the stem-suffixes. In the latter, a following segment changes the features of an earlier vowel in the word or the stem. Besides these, there are cases of *mutual vowel harmony* where both anticipatory and perseverant processes sequentially bring about the final output of the words or the stems in the SCB.

Perseverant Vowel Harmony : An On-going Change?

In the examples below, /i/ and /u/ influence the immediately following low vowel /a/, which is raised by one height depending on the frontness or the backness of the conditioning vowel, i.e., the harmonising vowel. We will notice that in some types of words the conditioning vowel is lost.

- 1 a. /iccha/→[icche] 'wish'; /ijar/→[ijer] 'a kind of shorts'; /kira/→[kire] 'swear'; /khira/→[khire] 'cucumber'; /khilan/→[khilen] 'arch, vault'; /gira/→[gire] 'knot'; /cita/→[cite] 'pyre'; /cira/→[cīre] 'flattened rice'; /citan/→[citen] 'tenor of musical composition'; /chīṭa/→[chīṭe] 'a drop, a pinch'; /jira/→[jire] 'cummin seed'; /jiran/→[jiren] 'rest, relaxation'; /jhīka/→[jhīke] 'jerk'; /jhīnga/→[jhīnge] 'a kind of

cucurbitaceous vegetable'; /ṭika/ → [ṭike] 'vaccination'; /ṭhika/ → [ṭhike] 'temporary'; /ḍiba/ → [ḍibe] 'box'; /ḍhila/ → [ḍhile] 'slack, loose'; /ṭita/ → [ṭite] 'bitter'; /diya/ → [diye] 'by'; /diṣa/ → [diṣe] 'direction'; /dhima/ → [dhime] 'slow'; /nikaṣ/ → [nikeṣ] 'extraction, finalisation'; /paikar/ → [paiker] 'wholesaler'; /phita/ → [phite] 'tape'; /bikal/ → [bikel] 'evening'; /bhita/ → [bhite] 'homestead'; /micha/ → [miche] 'false'; /riṭha/ → [riṭhe] 'soapnut'; /ṣika/ → [ṣike] 'jute-hanger'; /ṣiṣa/ → [ṣiṣe] 'lead'; /hira/ → [hire] 'diamond'; /hilla/ → [hille] 'settlement, arrangement'; /hiṣab/ → [hiṣeb] 'accounts'.

- b. /koliṣa/ → */koliṣe/ → [kolje] 'liver, heart'; /kolika/ → */kolike/ → [kolke] 'chillum'; /kunika/ → */kunike/ → [kunke] 'dry measure unit'; /khorika/ → */khorike/ → [khorke] 'toothpick'; /galica/ → */galice/ → [galce] 'carpet'; /caliṣa/ → */caliṣe/ → [calṣe] 'presbyopia'; /nalita/ → */nalite/ → [nalte] 'edible leaves of jute-plant'; /polita/ → */polite/ → [polte] 'wick'; /morica/ → */morce/ → [morce] 'rust'; /ṣoriṣa/ → */ṣoriṣe/ → [ṣorṣe] 'mustard'; /ṣolita/ → */ṣolite/ → [ṣolte] 'wick'.
- c. /ukha/ → [ukho] 'oven'; /uṭka/ → [uṭko] 'unknown, queer'; /udam/ → [udom] 'bare'; /kula/ → [kulo] 'winnowing fan'; /khuṛa/ → [khuṛo] 'uncle'; /guṛa/ → [guṛo] 'dust'; /gūta/ → [gūto] 'shove'; /ghumano/ → [ghumono] 'sleeping'; /cuma/ → [cumo] 'kiss'; /cula/ → [culo] 'oven'; /chuta/ → [chuto] 'excuse'; /chutar/ → [chutor] 'carpenter'; /juta/ → [juto] 'shoe'; /jhuna/ → [jhuno] 'ripe, experienced, shrewd'; /jhumka/ → [jhumko] 'bell-flower, bell-shaped earring'; /ṭukra/ → [ṭukro] 'piece'; /ṭhūṭa/ → [ṭhūṭo] 'handless, powerless'; /ḍuma/ → [ḍumo] 'cube-shaped piece'; /tula/ → [tulo] 'cotton'; /thubra/ → [thubro] 'very old'; /duna/ → [duno] 'twice'; /duyar/ → [duyor] 'door'; /dhuna/ → [dhuno] 'incense'; /dhula/ → [dhulo] 'dust'; /nula/ → [nulo] 'disabled by hand'; /pura/ → [puro] 'full'; /phuṭa/ → [phuṭo] 'hole'; /phuran/ → [phuron] 'piecemeal work'; /buṛa/ → [buṛo] 'old'; /bhuya/ → [bhuyo] 'false'; /mujra/ → [mujro] 'recital of performing arts; rebate, reward'; /mula/ → [mulo] 'radish'; /rupa/ → [rupe] 'silver'; /lukachuri/ → [lukocuri] 'hide and seek'; /ṣukna/ → [ṣukno] 'dry'; /ṣukta/ → [ṣukto] 'a kind of vegetable soup'; /huṛka/ → [huṛko] 'latch, bolt'.

The examples in (1) show that the preceding /i/ or /u/ influence the following low vowel /a/ which is raised to /e/ and /o/ respectively, i.e., raising of the low vowel takes place by one height depending on the frontness or the backness of the conditioning or harmonising vowel. The examples in (1b) are interesting in that in these cases, unless we posit an intermediate stage where vowel harmony took place, we cannot account for the changes because vowels of the same height cannot raise other vowels by one height. These words are different from those of (1a) where it is easy to explain the changes that are taking place, the difference between the input and the output is in one vowel height only: the harmonised segment, that is, the low central vowel is raised to the mid position as in /hira/ → [hire]. For the words in (1b), we are to take it for granted that at an earlier stage of the language the harmonic process has taken place. The final output does not give any indication of the change. Let us take an example: /polita/ became [polite] at an earlier stage of the SCB, for which we do not have any documentary evidence, we can only posit this change. The final output [polte] does not give us any clue whatsoever about the change of /a/ to /e/. It is, and other forms like it are, synchronically unpredictable. Rules of changes are as in (2) below:

- 2 a. $a \rightarrow e/ iC_1^2 \text{---}$ (=1a)
 b. $a \rightarrow e/ iC_1^1 \text{---}$
 \downarrow
 \emptyset (=1b)
 c. $a \rightarrow o/uC_1^2 \text{---}$ (=1c)

The rules above can be formalised into a single rule in the following way:

$$3 \quad \left[\begin{array}{l} +\text{syllabic} \\ -\text{back} \\ -\text{front} \\ +\text{low} \end{array} \right] \rightarrow \left[\begin{array}{l} -\text{high} \\ -\text{low} \\ \alpha \text{ back} \end{array} \right] / \left[\begin{array}{l} +\text{syllabic} \\ +\text{high} \\ \alpha \text{ back} \end{array} \right] C_1^2 \text{---} \quad (=1)$$

Sarkar (1983-84) is of the opinion that perseverant vowel harmony is a diachronic 'rule' in that the input and the output are not to be found in the spoken variety of the SCB. It is apparent from his discussion (and it was assumed too) that input was present at

an earlier state of the SCB. This view cannot be shared in view of different facts. Purely phonological cases of vowel harmony are not "rules" in the SCB. The changes have not affected all the words in the relevant sector of the lexicon. A phonological rule affects whole of the relevant segment of the vocabulary. Vowel harmony in Bengali does not. There are a large number of unaffected cases in the written and the spoken varieties of the SCB. A careful scrutiny of the change will show that they represent *a change in progress*. These are the synchronic examples of diachronic change. A change is taking place toward vowel harmony, and non-harmonic, that is, unchanged or competing forms are also alternately used by the speakers of the SCB. Vowel harmony as a process started long back, affecting the relevant segment of the vocabulary, but competing forms are also available, and there are a large number of residual forms too. The presence of competing forms, changed and unchanged words, points to the directionality of change towards vowel harmony. The change is not total or complete, but diffusing the lexicon gradually. On the one hand, these are very good examples of *on-going changes* in the SCB, manifesting synchronically diachronic fact, on the other hand, these are also the cases of *lexical diffusion*. To call these "diachronic rules" is far from linguistic facts.

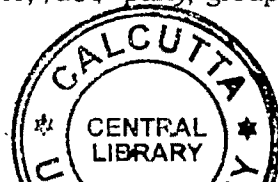
Anticipatory Vowel Harmony

Bengali has another type of vowel harmony called *anticipatory vowel harmony* where a following vowel or a semivowel influences the preceding vowel (intervened by one to two consonants or null) in raising or lowering the preceding vowel. The anticipatory vowel harmony is *mainly synchronic in nature*; there are cases of diachronic changes too. One group of synchronic vowel harmony is having both the input and the output available in the SCB. The other group synchronically represents diachronic change. Another large group can be classed under grammatically conditioned variety. These are mainly verbal forms and other derivatives from nouns. The grammatically conditioned cases are originally (that is, historically) arising out of morphophonemic changes with the loss of conditioning environments in the SCB. The examples are given below under different heads.

Synchronic Change : Type A

This synchronic change of vowel harmony occurs mainly at the morphophonemic level. Both input and output are very much present in the spoken variety of the SCB: changes in the stems occur with the change of the phonological/morphemic environments. In this type of synchronic change, the conditioning environments are either /i/ or /u/ and the affected vowels in the stems are /æ/, /e/, /ɔ/ and /o/. Irrespective of the conditioning vowels, the affected vowel is raised a degree higher in the same direction vertically.

- 4 a. /æ/ 'one' : [ekti] 'one (det)', [ektu] 'a pinch'; /kæbla/ 'unsmart': [kebli] 'id (fem)'; /khæ/ 'play' : [kheli] 'I/we play', [kheluk] 'let him/them play'; /cæŋgra/ 'young, flippant' : [ceŋgri] 'id (fem)'; /jæθa/ 'father's elder brother': [jethi] 'wife of elder brother of the father'; /dækh/ 'see' : [dekhi] 'I/we see', [dekhun] 'you see'; /næka/ 'skittish, soppy' : [neki] 'id (fem)'; /pæca/ 'owl': [pēcī] 'id (fem)'; /phæ/ 'throw, drop out': [pheli] 'I/we throw'; [phelun] 'you throw'; /bætha/ 'pain, ache' : [bethito] 'pained'; /bhæra/ 'ram': [bheri] 'ewe', [bheruya] 'sheepish, henpecked'; /mæ/ 'open out, spread out' : [meli] 'I/we spread out', [melun] 'you spread out' ; /jæ/ 'bake' : [jæki] 'I/we bake', [jækun] 'you bake'.
- b. /ken/ 'buy' : [kini] 'I/we buy', [kinun] 'you buy'; /gel/ 'swallow' : [gili] 'I/we swallow', [gilun] 'you swallow'; /gher/ 'encircle': [ghiri] 'I/we encircle', [ghirun] 'you encircle'; /cer/ 'saw' : [ciri] 'I/we saw', [cirun] 'you saw'; /chēr/ 'tear' : [chīri] 'I/we tear', [chīrun] 'you tear'; /jet/ 'win' : [jiti] 'I/we win', [jitun] 'you win'; /pher/ 'come back': [phiri] 'I we come back', [phirun] 'you come back'; /mel/ 'unite' : [mili] 'I/we unite', [milun] 'you unite'; /lekh/ 'write': [likhi] 'I/we write', [likhun] 'you write'.
- c. /ɔto/ 'so much': [oti] 'too much': /gɔto/ 'gone' : [goti] 'speed, motion'; /cɔ/ 'move' : [coli] 'I/we move out', [colun] 'you move'; /chɔ/ 'stick' : [chori] 'slender stick', /tɔ/ 'totter' : [toli] 'I/we totter', [tolun] 'you waver'; /dɔ/ 'knead' : [doli] 'I/we knead', [dolun] 'you knead'; /dhɔla/ 'to bend' : [dhɔladholi] 'dalliance, amorous sport'; /dɔ/ 'party, group' : [dɔladoli]



'factionalism'; /dhɔr/ 'hold' : [dhorɪ] 'I/we hold', [dhorun] 'you hold'; /nɔl/ 'tube' : [noli] 'small tube'; /pɔr/ 'read' : [porɪ] 'I/we read, [porun] 'you read'; /bɔl/ 'speak' : [boli] 'I/we speak', [bolun] 'you speak'; /bhɔr/ 'fill', [bhori] 'I/we fill (up)', [bhorun] 'you fill (up)'; /mɔr/ 'die' : [mori] 'I/we die' [moruk] 'let him/them die'; [lɔr] 'fight' : [lorɪ] 'I/we fight', [lorun] 'you fight'.

- d. /kon/ 'angle' : [konakuni] 'diagonally'; /khol/ 'open' : [khuli] 'I/we open' : [khulun] 'you open'; /gola/ '(cannon) ball' : [guli] 'cartridge'; /ghor/ 'wander around' : [ghuri] 'I/we roam around', [ghurun] 'you wander around'; /cor/ 'thief, burglar' : [curi] 'theft, burglary'; /cakor/ 'servant' : [cakuri] 'employment'; /chora/ 'boy' : [churi] 'girl'; /jor/ 'pair' : [juri] 'I/we pair together', [jurun] 'you pair together'; /tol/ 'lift' : [tuli] 'I/we lift', [tulun] 'you lift'; /por/ 'burn' : [puri] 'I/we burn', [purun] 'you burn'; /bhol/ 'forget' : [bhuli] 'I/we forget', [bhulun] 'you forget'; /moṭa/ 'fat man' : [muṭi] 'fat woman'; /lot/ 'plunder' : [luṭi] 'I/we plunder', [luṭun] 'you plunder'; /jon/ 'hear' : [juni] 'I/we hear', [junun] 'you hear'.

The examples in (4) show four types of changes which are shown below:

- 5 a. $\text{æ} \rightarrow \text{e/} - C_1^2 \left\{ \begin{smallmatrix} \text{i} \\ \text{u} \end{smallmatrix} \right\} \quad (=4a)$
- b. $\text{e} \rightarrow \text{i/} - C_1^2 \left\{ \begin{smallmatrix} \text{i} \\ \text{u} \end{smallmatrix} \right\} \quad (=4b)$
- c. $\text{ɔ} \rightarrow \text{o/} - C_1^2 \left\{ \begin{smallmatrix} \text{i} \\ \text{u} \end{smallmatrix} \right\} \quad (=4c)$
- d. $\text{o} \rightarrow \text{u/} - C_1^2 \left\{ \begin{smallmatrix} \text{i} \\ \text{u} \end{smallmatrix} \right\} \quad (=4d)$

The four rules in (5) showing vowel-raising by one height can be collapsed in the following way:

6

$$\left[\begin{array}{c} +\text{syllabic} \\ +\text{height}^n \\ \alpha \text{ back} \end{array} \right] \rightarrow \left[\begin{array}{c} +\text{height}^{n+1} \\ \alpha \text{ back} \end{array} \right] / - C_1^2 \left[\begin{array}{c} +\text{syllabic} \\ +\text{high} \end{array} \right] \quad (=5)$$

The operation of rule (5c) is blocked if /ɔ/ has the negative meaning word-initially:

- 7 asīma /ɔṣim/ [ɔṣim] 'without end'; atula/ɔtul/ [ɔtul] 'without comparison'; adhīra/ɔdhir/ [ɔdhir] 'restless'; etc.

Some non-negative words with word-initial /ɔ/ (followed by a high vowel in the next syllable) which should have resulted in /o/ in accordance with (4c) do not show the change in analogy with the negative words having word-initial /ɔ/. Some of these are given below in (8) and formalisation in (9), with negative condition:

- 8 anila /ɔnil/ → [ɔnil] 'air, wind'; akusthala /ɔkusthɔl/ → [ɔkusthɔl] 'place'; adbhuta/ɔdbhut/ → [ɔdbhut] 'wonderful, not seen before'; etc.

- 9 a. $\text{ɔ} \rightarrow \text{o}/\# - C_1^2 \left\{ \begin{smallmatrix} i \\ u \end{smallmatrix} \right\} (\dots)$

Condition: if /ɔ/ is negative (historical or analogical),
then /ɔ/ → [o] (=7,8)

Synchronic Change : Type B

Besides the vowels /i, u/ in (4), the semivowel /y/ acts as a harmoniser and changes the preceding /ɔ/ into /o/, if the semivowel is followed by a vowel other than high and low back vowels. The semivowel /y/ is underlyingly a front high vowel followed by another vowel. This glide can act as a harmoniser like that of rule (5c). In these cases, the preceding /ɔ/ is raised by one height. This change is blocked by two constraints, namely, (i) if the preceding /ɔ/ is having a negative meaning, and (ii) if the consonant /r/ is positioned before /y/. The second one is probably an optional change: both the harmonic and non-harmonic forms are alternately used by speakers of the SCB. All these words are having an /ɔ/ before the -Cy-clusters in the underlying levels, and followed by /o/, /æ/, /a/ and /e/. All the examples of the changes as well as the negative constraints discussed above are exemplified below:

- 10 a. anya /ɔnyo/ → [onno] 'other'; abhyāsa /ɔbhyæṣ/ → [obbhæṣ] 'habit'; ālasya /aɔṣyo/ → [aloṣṣo] 'idleness';

kanyā /kɔ̃ nyɑ/ → [konna] 'daughter, girl'; kalyāṇa /kɔ̃ lyæn/ → [kollæn] 'welfare'; gadya /gɔ̃ dyo/ → [goddo] 'prose'; janye /jɔ̃ nye/ → [jonne] 'for (the sake of)'; tathya /tɔ̃ thyo/ → [tottho] 'fact, information'; damya /dɔ̃ myo/ → [dommo] 'suppressible'; dhanya /dhɔ̃ nyo/ → /dhonno/ 'fortunate'; navya /nɔ̃ byo/ → [nobbo] 'new'; padya /pɔ̃ dyo/ → [poddo] 'verse, poetry'; vanyā /bɔ̃ nya/ → [bonna] 'flood'; bhavya /bhɔ̃ byo/ → [bhobbo] 'courteous'; madhye /mɔ̃ dhye/ → [moddhe] 'in the middle'; labhya /lɔ̃ bhyo/ → [lobbho] 'obtainable'.

- b. anyāya /ɔ̃ nyæy/ → [ɔ̃ nnæy] 'injustice'; akhyāta /ɔ̃ khyæto/ → [ɔ̃ kkhæto] 'not famous'.
- c. aryamā /ɔ̃ ryoma/ → [ɔ̃ rjjoma] 'sun'; arghya /ɔ̃ rghyo/ → [ɔ̃ rggho] 'offerings'; kartavya /kɔ̃ rtobyο/ → [kɔ̃ rtobbo] 'duty'; carvyā /cɔ̃ rbyo/ → [cɔ̃ rbbo] 'masticable'; paryāya /pɔ̃ rjyay/ → [pɔ̃ rjjay] 'sequence'; martya /mɔ̃ rtyo/ → [mɔ̃ rtto] 'mortal'; smartavya /ʃmɔ̃ rtobbo/ → [ʃmɔ̃ rtobbo] 'memorable'.

In (10b), the negative marker word-initially, and in (10c), /r/ before /y/ blocks the harmonic change. In the pronunciation of some speakers of the SCB, the /ɔ̃/ of (10c) appears as [o] as a sort of hyper-correction (=hyper-urbanism). In the examples in (10b), grammatical category (negative marker) blocks the harmonic change.

We are giving below another type of words with -CC- clusters where there is no /y/ at the surface levels, but the speakers of the SCB feel that these words are arising out of -Cy- clusters, that is /y/ is present at the underlying level. Accordingly, these words undergo harmonic changes: the preceding /ɔ̃/ changes into /o/ (see Chatterji 1926). These are given below in (10d-h):

- 10 d. kakṣa /kɔ̃ khyo/ → [kokkho] 'room, chamber'; takṣaka /tɔ̃ khyok/ → [tokkhok] 'a kind of venomous snake'; dakṣa /dɔ̃ khyo/ → [dokkho] 'expert'; nakṣatra /nɔ̃ khyotro/ → [nokkhottro] 'star'; pakṣa /pɔ̃ khyo/ → [pokkho] 'side, wing'; rakṣā /rɔ̃ khyā/ → [rokkha] 'protection'; rakṣaka /rɔ̃ khyok/ → [rokkhok] 'protector, saviour'; lakṣa /lɔ̃ khyo/ → [lokkho] 'aim, target'.
- e. akṣama /ɔ̃ khyom/ → [ɔ̃ kkhom] 'powerless'; akṣaya /ɔ̃ khyɔy/ → [ɔ̃ kkhoy] 'without decay, undecaying'.

- f. avajñā /ɔbɔgyã/ → [ɔboggã] 'disregard'; prajñā /prɔgyã/ → [proggã] 'knowledge'; yajñā /jɔgyɔ/ → [joggɔ] 'sacrifice, rituals, oblation, offerings'; prajñāna /prɔgyæn/ → [proggæn] 'superior knowledge'.
- g. brahma /brɔmyo/ → [brommo] 'the Absolute Being'; brahmā /brɔmya/ → [bromma] 'Brahma'.
- h. ajñā /ɔgyɔ/ → [ɔggɔ] 'unknowing'; ajñāna /ɔgyæn/ → [ɔggæn] 'senseless'.

The examples in (10) show that all the words are having /-y-/ at the surface or the underlying levels. The changes are also identical: /ɔ/ → /o/, but there are two constraints to the changes, which can be formalised in the following way:

11

$$\left[\begin{array}{c} +\text{syllabic} \\ +\text{low} \\ +\text{back} \end{array} \right] \rightarrow \left[\begin{array}{c} -\text{high} \\ -\text{low} \\ +\text{back} \end{array} \right] / \text{---C} \left[\begin{array}{c} -\text{syllabic} \\ -\text{consonantal} \\ -\text{back} \\ +\text{high} \end{array} \right] \left\{ \begin{array}{c} +\text{syllabic} \\ -\text{high} \\ -\text{low} \\ +\text{syllabic} \\ +\text{low} \\ -\text{back} \end{array} \right\}$$

Conditions: (i) /ɔ/ ≠ negative marker word-initially

(ii) C ≠ r (=10)

We may pose a question here: is this change synchronic or diachronic? For each of the words in question we have posited an underlying representation. A rule which serves in a synchronic analysis to connect abstract representations with their surface forms, may in a diachronic analysis specify the derivations of forms from their historical antecedents. Moreover, underlying representations postulated in a synchronic analysis often prove quite similar to surface forms of an earlier historical stage of the language. These underlying representations posited to explain the harmonic changes may in all probability represent historical earlier forms. This is not synchronic representations of diachronic facts. Though apparently these changes are reflection of synchronic changes, they may better be taken as diachronic changes of vowel harmony. The words had the /ɔ/-pronunciations at an earlier stage of Bengali.

Diachronic Change

In the diachronic aspect of anticipatory vowel harmony, the vowels that follow act as the conditioning factors in raising or lowering the earlier vowels in the words, affecting a number of words of the lexicon. Tentatively, we will divide these words into different groups which are shown below.

Diachronic Change: Type A

In this type of anticipatory vowel harmony, a latter segment /a/ lowers the earlier high (front and back) and mid (front) vowels, The high front vowel /i/ raises the mid vowels by one height. The vowel /o/ lowers the high vowels to the mid positions. In some cases, the central vowel is raised to the front mid position by the following /i/. The low back vowel is raised by the following high vowels /i, u/.

- 12 a. /killa/ → [kella] 'fort'; /ghinna/ → [ghenna] 'hatred'; /ciknai/ → [ceknei] 'glaze, lustre'; /jimma/ → [jemma] 'custody'; /jila/ → [jela] 'district'; /jilla/ → [jella] 'glow, lustre'; /jihad/ → [jehad] 'crusade'; /tjaraɔt/ → [tejaɔt] 'usury'; /nihai/ → [nehai] 'anvil'; /piyada/ → [peyada] 'bearer'; /piyaj/ → [peyaj] 'onion'; /piyara/ → [peyara] 'guava'; /piyala/ → [peyala] 'cup'; /pista/ → [pesta] 'pistachio'; /phirapheri/ → [pherapheri] 'coming and going'; /biɔal/ → [beɔal] 'cat'; /bhiyan/ → [bhiyen] 'confectionery'; /miyad/ → [meyad] 'term'; /mirjai/ → [merjai] 'a kind of waist-coat'; /mijrab/ → [mejrab] 'wire-thimble for playing stringed musical instruments'.
- b. /umra/ → [omra] 'minister'; /kuddal/ → [kodai] 'spade'; /khuda/ → [khoda] 'God'; /khuya/ → [khoya] 'loss, lost'; /gulab/ → [golap] 'rose'; /ghumṭa/ → [ghomṭa] 'veil worn on the head'; /cuṅga/ → [coṅga] 'pipe, tube'; /cūya/ → [cōya] 'bileous (eructation)'; /julap/ → [jolap] 'laxative'; /jubba/ → [jobba] 'loose and long outfit for men'; /ṭhunga/ → [ṭhoṅga] 'hand-made paper carton'; /dhūya/ → [dhōya] 'smoke'.
- c. /eka/ → [æka] 'alone'; /ekla/ → [ækla] 'alone, lonely'; /keramoti/ → [kæramoti] 'skill, show of skill'; /khemṭa/ → [khæmṭa] 'a

kind of dance'; /kheʃarot/→[khæʃarot] 'compensation'; /gējla/→[gæjla] 'froth, scum'; /gēda/→[gæda] 'marigold'; /cela/→[cæla] 'disciple'; /chēda/→[chæda] 'bore, hole'; /chekra/→[chækra] 'hackney carriage'; /jheta/→[jhæta] 'broomstick'; /tera/→[tæra] 'squint'; /thēta/→[thæta] 'impertinent, obstinate'; /dera/→[dæra] 'den'; /dela/→[dæla] 'lump, clotted mass'; /dherga/→[dhænga] 'lanky'; /telapoka/→[tælapoka] 'cockroach'; /thebra/→[thæbra] 'snub, flat'; /dhebra/→[dhæbra] 'smudgy patch'; /neba/→[næba] 'hepatitis'; /peṭra/→[pæṭra] 'portmanteau'; /phena/→[phæna] 'leather, foam'; /phelna/→[phælna] 'insignificant, negligible'; /phēʃad/→[phæʃad] 'predicament'; /bergoma/→[bængoma] 'mythical bird'; /beca/→[bæca] 'selling'; /bhejal/→[bhæjal] 'adulteration'; /bheṛa/→[bhæṛa] 'ram'; /meṛa/→[mæṛa] 'ram'; /merap/→[mærap] 'temporary shed'; /meramot/→[mæramot] 'repairing'; /rela/→[ræla] 'boasting, vaunting'; /leja/→[læja] 'tail (of a fish)'.

- 13 a. /deʃi/→[diʃi] 'indigenous'; /jedi/→[jidi] 'obstinate'; /teli/→[tili] 'oil-presser'; /nemi/→[nimi] 'circumference (of a wheel)'; /pheri/→[phiri] 'hawking, peddling'.
- b. /ekhoni/→[ekhuni] 'now (emphatic)'; */kuṛoli/→[kuṛul] 'axe'; /khāṭoni/→[khāṭuni] 'labour, toil'; /gāthoni/→[gāthuni] 'construction, structure'; /ghuroni/→[ghuruni] 'revolving, reeling'; /cahoni/→[cauni] 'look, glance'; /cironi/→[ciruni] 'comb'; /chaoni/→[chauni] 'camp, temporary shed, roofing'; /jɔloni/→[joluni] 'mortification, burning sensation'; /jhākɔni/→[jhākuni] 'jerk'; /; /ṭiponi/→[ṭipuni] 'pressing, massaging, squeezing'; /ḍhuloni/→[ḍhuluni] 'drowsiness, intoxication'; /taloi/→[talui] 'father/uncle-in-law of one's brother or sister'; */tētoli/→[tētul] 'tamarind'; /duloni/→[duluni] 'swinging, rocking'; /dhūkoni/→[dhūkuni] 'throbbing, palpitation'; /dhuconi/→[dhucuni] 'wicker basket for washing fish, rice etc'; /naconi/→[nacuni] 'dancing'; /paṭoni/→[paṭuni] 'ferryman'; /patori/→[paturi] 'a kind of delicacy'; /pathori/→[pathuri] 'gallstone'; /phokkori/→[phokkuri] 'kidding';

/phuloṛi/→[phulur̥i] 'a kind of fried chop made of pigeon-pea or gram'; /bādhoni/→[bādhuni] 'fastening, tying; methodicalness'; /begoni/→[beguni] 'violet, a kind of oil-cake made of aubergine and pigeon-pea fried in oil'; /madoli/→[maduli] 'amulet'; /murobbi/→[murubbi] 'patron'; /multobi/→[multubi] 'deferment, postponement'; /muhoṛi/→[muhuri] 'court clerk'; /rādhoni/→[rādhuni] 'cook'; /rogi/→[rugi] 'patient'.

- 14 a. /ɔ̃ti/→[oti] 'excessive'; /ɔ̃muk/→[omuk] 'so and so'; /kɔ̃ti/→[koti] 'some'; /khɔ̃ti/→[khoti] 'loss'; /khɔ̃pur/→[khopur] 'casket for betel leaves'; /gɔ̃ti/→[goti] 'motion'; /gɔ̃lui/→[golui] 'prow'; /ghɔ̃ri/→[ghori] 'clock, watch'; /cɔ̃ti/→[coṭi] 'slippers'; /cɔ̃tul/→[coṭul] 'flippant'; /chɔ̃ri/→[choṛi] 'stick'; /jɔ̃mi/→[jomi] 'land'; /jɔ̃mbu/→[jombu] 'jackal'; /jhoṭiti/→[jhoṭiti] 'quickly'; /tɔ̃kli/→[tokli] 'spindle'; /tɔ̃nu/→[tonu] 'body'; /thɔ̃li/→[tholi] 'gunny-bag, sack'; /dɔ̃ntur/→[dontur] 'toothed, cruel, ferocious'; /dhɔ̃ni/→[dhoni] 'rich'; /dhɔ̃nuk/→[dhonuk] 'bow'; /nɔ̃thi/→[nothi] 'record'; /nɔ̃tun/→[notun] 'new'; /pɔ̃li/→[poli] 'alluvium'; /pɔ̃ʃu/→[poʃu] 'animal'; /phɔ̃tik/→[phoṭik] 'crystal'; /phɔ̃tur/→[photur] 'run out, exhausted'; /bɔ̃ndi/→[bondi] 'imprisoned'; /bɔ̃ndhu/→[bondhu] 'friend'; /bhɔ̃ngi/→[bhonggi] 'fashion, pose, posture'; /bhɔ̃ngur/→[bhonggur] 'brittle, frail'; /mɔ̃ti/→[moti] 'intention'; /mɔ̃dhur/→[modhur] 'sweet'; /rɔ̃ddi/→[roddi] 'trash'; /rɔ̃ʃun/→[roʃun] 'garlic'; /lɔ̃ti/→[loti] 'lobe of the ear'; /lɔ̃ghu/→[loghu] 'light'; /ʃɔ̃kti/→[ʃokti] 'prowess, power'.

- b. /khai/→[khei] 'cue, clue'; /nai/→[nei] 'not'

- 15 a. /ĩcor/→[ẽcor] 'unripe jackfruit'; /pichɔ̃n/→[pechɔ̃n] 'back (side)'; /pichol/→[pechol] 'slippery'; /pitol/→[petol] 'brass'; /bhitor/→[bhetoṛ] 'inside'.

- b. /upor/→[opor] 'top, surface, upward'.

In the examples in (12), we find that the vowel /a/ lowers the preceding vowels /i, u, e/ by one height in the same direction of

the vowels affected by the change. In (13) the front and the back mid vowels are raised by one height in the respective directions. We do not have much data at hand for the change in (13a). This change is quite natural. The type of change found in (13b) is much more common and a large number of words have been affected by this type of raising of the back mid vowel to the high position by the following /i/. The change in (14a) is the most remarkable change in that it affects the whole range of the relevant lexicon. All the underlying /ɔ/ are raised to /o/ by the following /i, u/. This means that this change is complete. There are no residues or competing forms. Excepting the words in (14a), all other forms are used alternately by the speakers of the SCB. In written texts, older forms are met with more often. Some of the words in (12a) do not have any competing forms, e.g. /kella/ 'fort', /jela/ 'district', /jella/ 'glaze, shine', /jehad/ 'crusade', /tejarɔt/ 'money-lending', /peyada/ 'liveried messenger' /peyala/ 'cup', /pesta/ 'pistachio', /meyad/ 'term', /hephajot/ 'custody' etc. These forms are used, older ones are no more used either in written or spoken Bengali.

The changes described above can be shown in the following way:

16 a.

$$\begin{bmatrix} +\text{syllabic} \\ +\text{high} \\ \alpha \text{ back} \\ +\text{syllabic} \\ -\text{high} \\ -\text{low} \\ -\text{back} \end{bmatrix} \rightarrow \begin{bmatrix} -\text{high} \\ -\text{low} \\ \alpha \text{ back} \\ +\text{low} \\ -\text{back} \end{bmatrix} \Big/ \text{---} C_1^2 \begin{bmatrix} +\text{syllabic} \\ +\text{low} \\ -\text{back} \\ -\text{front} \end{bmatrix}$$

(=12a-c)

b.

$$\begin{bmatrix} +\text{syllabic} \\ -\text{high} \\ -\text{low} \\ \alpha \text{ back} \end{bmatrix} \rightarrow \begin{bmatrix} +\text{high} \\ \alpha \text{ back} \end{bmatrix} \Big/ \text{---} C_1 \begin{bmatrix} +\text{syllabic} \\ +\text{high} \\ -\text{back} \end{bmatrix}$$

(=13a-b)

$$c. \begin{bmatrix} +\text{syllabic} \\ +\text{low} \\ +\text{back} \end{bmatrix} \rightarrow \begin{bmatrix} -\text{high} \\ -\text{low} \\ +\text{back} \end{bmatrix} \Big/ \text{---} C_0 \begin{bmatrix} +\text{syllabic} \\ +\text{high} \end{bmatrix} \quad (=14a)$$

$$d. \begin{bmatrix} +\text{syllabic} \\ +\text{low} \\ -\text{back} \\ -\text{front} \end{bmatrix} \rightarrow \begin{bmatrix} -\text{high} \\ -\text{low} \\ -\text{back} \end{bmatrix} \Big/ \text{---} \begin{bmatrix} +\text{syllabic} \\ +\text{high} \\ -\text{back} \end{bmatrix} \quad (=14b)$$

$$e. \begin{bmatrix} +\text{syllabic} \\ -\text{high} \\ \alpha \text{ back} \end{bmatrix} \rightarrow \begin{bmatrix} -\text{high} \\ -\text{low} \\ \alpha \text{ back} \end{bmatrix} \Big/ \text{---} C_1 \begin{bmatrix} +\text{syllabic} \\ -\text{high} \\ -\text{low} \\ +\text{back} \end{bmatrix} \quad (=15a-b)$$

There are some other words which undergo change in line with (15a), but we need some intermediate stage(s) to explain the change which are given below in (17):

- 17 *kīrtana* → /kit̪ɔn/ → /kit̪on/ → [ket̪on] 'glorification, song of praise'; *nr̥tya* → nr̥tya → /n̥ittɔ/ → /n̥itto/ → [net̪to] 'dance'; *nitya* → /n̥ittɔ/ → /n̥itto/ → [net̪to] 'regular, eternal'; *bilva* → /billɔ/ → /billo/ → */bello/ → [bel] 'aegle marmelos'.

The formalisation of this will be slightly different from that of (16e):

$$18. \begin{bmatrix} +\text{syllabic} \\ +\text{high} \\ -\text{back} \end{bmatrix} \rightarrow \begin{bmatrix} -\text{high} \\ -\text{low} \end{bmatrix} \Big/ \text{---} C_1^2 \begin{bmatrix} +\text{syllabic} \\ -\text{high} \\ -\text{low} \\ +\text{back} \end{bmatrix} \quad (=17)$$

Diachronic Change : Type B

The anticipatory aspect of vowel harmony with purely diachronic change can be obtained in the verbal and derivative forms in the SCB. The forms available for the Calcutta Cockney also show this type of change. By this change, a low vowel can be raised to the front mid position by immediately neighbouring front high vowel (historical or analogical). This was a productive change in the Calcutta Cockney. This vowel harmony is a post-metathetic change in all

cases. This change is identical with that of (14b), with some exceptions. The following are the examples of this type of change. This change occurred at certain period of New Bengali, and in the current forms that are available there are no traces of the conditioning environments. We have given the intermediate stages in the examples below:

- 19 /aji/ → /aij/ → */ejj/ → [ej] 'today'; /kali/ → /kail/ → */keil/ → [kel] 'tomorrow'; /cali/ → /cail/ → /ceil/ → [cel] 'rice'; /jati/ → /jait/ → /jeit/ → [jet] 'caste'; /rati/ → /rait/ → /reit/ → [ret] 'night'; ṣāṭi /ṣaṭi/ → /ṣait/ → /ṣeṭ/ → [ṣeṭ] 'sixty'; gāṭi/ → /gāit/ → /gēit/ → [geṭ(er koṛi)] 'pocket (money)'; /bhai/ → /bhei/ → [bhe(yer be)] 'brother ('s marriage)'.
- 20 /rakhiya/ → /raikhya/ → /raikha/ → /reikha/ → /reikhe/ → [rekhe] 'having kept'; /hariya/ → /hairya/ → /haira/ → /heira/ → /heire/ → [here] 'having lost'.
21. a. /kaliya/ → /kailya/ → /kaila/ → /keila/ → /keile/ → [kele] 'dark complexioned'; /jaliya/ → /jailya/ → /jaila/ → /jeila/ → [jele] 'fisherman'; /baniya/ → /bainya/ → /baina/ → /beina/ → /beine/ → [bene] 'merchant'.
- b. /machuya/ → /mauchya/ → /maucha/ → /maucho/ → /maicho/ → /meicho/ → [mecho] 'fisherman'; sāṭhuyā /ṣaṭhuya/ → /ṣaṭhuya/ → /ṣaṭha/ → /ṣaṭho/ → /ṣaitho/ → /ṣeitho/ → [ṣetho] 'traveller's compainion, companion'.

In the examples in (20) and (21a), vowel harmony occurs when /i/ comes in contact with /a/ after the metathetic changes in the stems. At one stage of the language the vowels had an intervening consonant. This was a predominant change in Bengali and this type of change influenced other stems where there was no /i/ in the stems. Examples in (21b) show that /maucho/ and /ṣaṭho/ are changed into /maicho/ and /ṣaitho/, respectively by the influence of the forms like those of (21a). This is an analogical development (For a detailed discussion see Nath 1996, Sarkar 1983-84). And after this development vowel harmony takes place. This is a diachronic change. In this change, the intermediate stages are not

available in the SCB, but are well preserved in the relic areas of Bengali, that is, in many dialects of the Bengali language. This change is sequentially ordered (i.e. having feeding relationship), which we can show by two rules in the following order :

- 22 a. $a \rightarrow e/-i$
 b. $i \rightarrow \emptyset$ (=19-21)

Grammatical Conditioning

At the outset we have said that Bengali vowel harmony has been viewed only as a phonological process though it undergoes morphophonemic conditioning. Morphophonemic changes are grammatical changes as well because morphophonemes presuppose paradigmatic sets as the forms for change, and never be sounds irrespective of grammatical machinery. However, a number of verbal forms for almost all the verbs in Bengali as well as some derivative forms cannot be explained without grammatical information. Diachronically, these changes are arising out of morphophonemic alternations. So, both synchronically and diachronically, grammatical conditioning is a factor to be reckoned with.

Across the board, the vowels /i, u, a/ (and in some cases the vowel /o/) and the semivowel /y/ act as harmonisers in the phonological and morphophonemic cases of the vowel harmony. We have already mentioned that the vowels of the same height can never induce changes in the vowels. If we look at the grammatically conditioned cases, we notice that the mid and the low vowels raise the vowels of the same or unequal height in the Bengali verb-stems (we have restricted our discussion to a particular type of verbs with CVC pattern, we will describe the change only in these verbs, other types of verb are left out): the verbs are /dækh/ 'see', /lekh/ 'write', /kɔɾ/ 'do' and /tol/ 'lift'. All these four verbs with different stem vowels show similar type of changes. CVC pattern verbs have other types and their changes are also different from the above-mentioned verbs. One peculiar feature of these verbs is that when high vowels induce harmonic changes in the stem vowels then these are called morphophonemic changes. These high vowels then act as [+segment]. Other cases caused by vowels which are [-segment] are called grammatically conditioned changes.

- 23 a. /dækh+i/→[dekhi] 'I/we see'; /lekh+i/→[likhi] 'I/we write';
/kɔr+i/→[kɔri] 'I/we do'; /tol+i/→[tuli] 'I/we lift'.
- b. /dækh+e/→[dækhe] 'he sees, they see'; /lekh+e/→[lekhe]
'he writes, they write'; /kɔr+e/→[kɔre] 'he does, they do';
/tol+e/→[tole] 'he lifts, they lift'.
- c. /dækh+o/→[dækho] 'you see'; /lekh+o/→[lekho] 'you
write'; /kɔr+o/→[kɔro] 'you do'; /tol+o/→[tolo] 'you lift'.
- d. /dækh+a/→[dækha] 'seeing'; /lekh+a/→[lekha] 'writing';
/kɔr+a/→[kɔra] 'doing'; /tol+a/→[tola] 'lifting'.
- 24 a. /dækh+e/→[dekhe] 'having seen'; /lekh+e/→[likhe] 'having
written'; /kɔr+e/→[kore] 'having done'; /tol+e/→[tule]
'having lifted'.
- b. /dækh+o/→[dekho] 'you will see'; /lekh+o/→[likho] 'you
will write'; /kɔr+o/→[koro] 'you will do'; /tol+o/→[tulo]
'you will lift'.
- c. /dækh+lām/→[dekhlām] 'I/we saw'; /lekh+lām/→[likhlām]
'I/we wrote'; /kɔr+lām/→[korlām] 'I/we did'; /tol+lām/
→[tullām] 'I/we lifted'.

If we compare the examples in (23) and (24), we see certain interesting results. (23a) shows vowel harmony (raising) of the stem vowels because of the influence of the suffixal high vowels. (23d) does not show any raising operation of the stem vowels of the all the four verbs, whereas in (24a-c) we find the same vowels are raising the stem vowels of the verbs. The conditioning environments are the same but the output vowels of the stems are different. The low vowels /æ, ɔ/ are raised by the low vowel /a/.

Thus the vowels of the same height do the raising operation. The mid vowels too are doing the same type of change: raising the mid vowels to the high positions and the low vowels are directed by the mid vowels to the mid positions. These are not the general rules of Bengali vowel harmony. The changes in (24a-c) as distinct from (24b-d) are caused by the grammatical information contained in the phonological entities. The conditioning vowels /e, o, a/ in (24a-c) are not [+segment]. These vowels are considered [-segment]. So the changes in (24) are all grammatically conditioned as the same types of environments in (23 b-d) do not change the stem vowels.

Bengali verbs have different tense-aspects. For our discussion, we have not taken into consideration the compound verbs. These verbs have the following tense-aspects:

- 25 Present : simple, progressive, perfective, imperative.
 Past : simple, habitual, progressive, perfective.
 Future : simple, imperative.

Number is not distinguished in Bengali for the verbal forms: singular and plural are having the same forms. Third personal verbs have two forms, one for the non-honorific, the other for the honorific. The nonhonorific form /*je*/ 'she, he' is called here S-1, and the honorific form, /*tini*/ 'she, he', S-2. Second personal verbs have three forms: one for the honorific and the other two for the non-honorific, honorific forms are called V-forms, and non-honorific forms T-forms. Forms with pronoun /*tumi*/ 'you' are called T-1 and with /*tui*/ 'you', T-2. For the pronouns singular and plural are distinguished. Only singular forms have been mentioned above.

We are giving below a chart of the changes and also the forms that do not undergo charges:

26	Changed by phonological conditioning	unchanged	Changed by grammatical conditioning
PRESENT			
(i) simple	1P; 2P:T-2	2P:T-1 3P:S-1, S-2	No forms
(ii) progressive	1P; 2P:T-2	No forms	2P:T-1, V; 3P:S-1, S-2
(iii) perfective	No forms	No forms	All forms
(iv) imperative	2P:V; 3P:S-1, S-2	2P:T-1, T-2	No forms
PAST			
(i) simple	2P:T-2	No forms	{ All forms except 2P:T-2
(ii) habitual	2P:T-2	No forms	
(iii) progressive	All forms	No forms	No forms
(iv) perfective	No forms	No forms	All forms
FUTURE			
(i) simple	2P:T-2	No forms	{ All forms except 2P:T-2
(ii) imperative	2P:T-2	No forms	

From the chart in (26), we can formalise the changes affected by grammatical conditioning in (27) which is given below:

$$27 \quad \left[\begin{array}{l} +\text{syllabic} \\ -\text{high} \\ +\text{height}^n \\ \alpha \text{ back} \end{array} \right] \left[\begin{array}{l} +\text{height}^{n+1} \\ \alpha \text{ back} \end{array} \right] / \text{---C} \left[\begin{array}{l} C_0^1 \\ eC \end{array} \right] \left\{ \begin{array}{l} a \\ e \\ o \end{array} \right\}$$

Verb

$$\left\{ \begin{array}{l} \left[\begin{array}{l} +\text{present} \\ -\text{simple} \\ \left[\begin{array}{l} +\text{progressive} \\ -1P \\ -2P \text{ T-2} \end{array} \right] \\ +\text{perfective} \\ -\text{imperative} \end{array} \right] \\ \left[\begin{array}{l} +\text{past} \\ +\text{simple} \\ -2P \text{ T-2} \\ +\text{habitual} \\ -2P \text{ T-2} \\ -\text{progressive} \\ +\text{perfective} \end{array} \right] \\ \left[\begin{array}{l} +\text{future} \\ +\text{simple} \\ +\text{imperative} \\ -2p \text{ T-2} \end{array} \right] \\ \left[\begin{array}{l} [+gerund] \\ [+infinitive] \end{array} \right] \end{array} \right\} \quad (=26)$$

The formalism in (27) may be explained in the following way: [heightⁿ] means any height. The notation [-high] means that only the non-high vowels, both front and back, are raised to [n+1] position, that is by one height only, depending on the frontness or the backness of the input vowels. All the verbs in question end in a consonant. + (plus) sign is the indicator of morpheme boundary. The suffixal morpheme can begin with a consonant or null and to be followed by either of the following three vowels /a, e, o/. And if the suffix begins with /-e/, it should be followed by a consonant. Let us exemplify the rule:

28	/lekh+tam/→	[likhtam]	'I/we used to write' (Past : Habitual)
	/lekh+te/→	[likhte]	'to write; you used to write' (Infinite; Past : Habitual)
	/lekh+to/→	[likhto]	'he/they used to write' (Past: Habitual)
	/lekh+o/→	[likho]	'you (will) write' (Future: Imperative)
	/lekh+e/→	[likhe]	'having written (Gerund)
	/lekh+echi/→	[likhechi]	'I/we have written' (Present: Perfective)

From the formalism in (27), it appears that grammatical conditioning of vowel harmony does not take place in present simple tense: all the forms here undergo morphophonemic changes due to phonological environments or no changes take place due to specific phonological environments. In the present progressive, only 1P and 2P T-2 forms are directed by phonological conditions, other forms are changed (=raised) due to grammatical conditioning. In the present imperative no forms are affected by grammatical conditioning. In the past simple and habitual, all but 3P T-2 forms are changed by the grammatical machinery. No progressive past forms undergo grammatical conditioning. All the forms of the past perfective are directed by grammatical information. In future simple and imperative 2P T-2 forms have necessary environment for vowel harmony, other forms are changed by the grammatical category contained in the phonological segment. Among the non-finite verbs, gerunds and infinitives also undergo grammatical change.

The derivative words in Bengali also show this type of grammatical changes. Bengali has the suffixes like -o and -e, by which adjectives or agentives can be formed from the nouns. The examples below show the raising of the stem vowels by the suffixal vowels:

- 29 a. /jɔl+o/→ [jolo] 'watery; without substance'; /tɔk+o/→ [toko] 'sour'; /pɔt+o/→ [poɔo] 'painter (of a pat)'; /mɔtʰ+o/→ [moɔho] 'pertaining to a mutt'.

- b. /kon+o/→[kuno] 'shy, domestic, home-loving'; /gōph+o/→[gūpho] 'moustached'; /ṭol+o/→[ṭulo] 'pertaining to tol (=traditional school of scholastic Sanskrit-learning)'; /bon+o/→[buno] 'wild'; /bhol+o/→[bhulo (-mona)] 'absent (-minded)'.
- c. /akh+o/→[ekho] 'made of sugar-cane'; /kaṭh+o/→[keṭho] 'wooden'; /gach+o/→[gecho] 'living in tree; having undersirable quality'; /ghaṭ+o/→[gheṭo] 'grassy'; /dāt+o/→[dēto] 'toothed, displaying one's teeth'; /ban+o/→[beno] 'relating to flood'; /bhat+o/→[bheto] 'subsisting on (boiled) rice'; /maṭh+o/→[meṭho] 'relating to field; mudane'; /haṭ+o/→[heṭo] 'form the market, belonging to a haṭ'.
- 30 a. /ghor+e/→[ghore] 'belonging to house'; /jot+e/→[jote] 'knotty'.
- b. /kōdol+e/→[kūdule] 'quarrelsome'; /mot+e/→[muṭe] 'porter, coolie'.
- c. /gāṭ+e/→[gēṭe] 'nodose, knotty'; /jal+e/→[jele] 'fisherfolk'.

In these examples the changes in the stem vowels are not in line with the general pattern of Bengali vowel harmony. The suffixal vowels containing grammatical information initiate the changes. In Bengali, vowels of the same height cannot induce any change nor a mid vowel can raise a low vowel into a higher vowel. The examples in (29b, 30b) show that /o/ is raised to /u/ by the vowels of the same height, and the mid vowels raise the low vowels to the mid position in (29a,c) and (30a,c). These are distinct from phonologically conditioned changes. The rules of changes can be shown by the following formalism:

$$31 \left[\begin{array}{c} [+syllabic] \\ -high \\ +back \\ [+syllabic] \\ +low \\ -back \\ -front \end{array} \right] \rightarrow \left[\begin{array}{c} [+height^t] \\ -high \\ -low \\ -back \end{array} \right] \left/ \begin{array}{c} [+Noun]^C + \left\{ \begin{array}{c} e \\ o \end{array} \right\} [-segment] \end{array} \right. \quad (=29-30)$$

One may ask the question: are these changes synchronic or diachronic? Are these purely grammatically conditioned changes or something else? How can we better explain these forms? Before answering the question, let us look at the stages of the development required for explaining the changes for some of the words like the following (see also Sarkar 1983-84). It can be seen here that surface representations here act also as underlying representations.

- 32 a. /jɔl+uya/ : underlying representation
 /joluya/ : surface representation (Sadhu form: [joluya])
 /joulya/ : metathesis (dialectal form: [joulla])
 /joula/ : loss of y (dialectal form: [joula])
 /joulo/ : vowel harmony (dialectal form: [joulo])
 /jolo/ : loss of /u/
 [jolo] : derived representation (SCB form)
- b. /kal+iya/ : underlying representation
 /kailya/ : surface representation (Sadhu form: [kaliya])
 /kailya/ : metathesis (dialectal form : [kailla])
 /kaila/ : loss of /y/ (dialectal form : [kaila])
 /keila/ : vowel harmony (dialectal form : [keila])
 /keile/ : vowel harmony (dialectal form : [keile])
 /kele/ : loss of /i/
 [kele] : derived representation (SCB form)
- c. /haɫ+uya/ : underlying representation
 /haɫuya/ : surface representation (Sadhu form : [haɫuya])
 /hauɫya/ : metathesis (dialectal form : [hauɫta])
 /hauɫa/ : loss of /y/ (dialectal form : [hauɫa])
 /hauɫo/ : vowel harmony (dialectal form : [hauɫo])

/haiɽo/	: analogical levelling with the forms in /-iya/ (dialectal form : [haiɽo])
/heɽo/	: vowel harmony (dialectal form : [heɽo])
/heɽo/	: loss of /i/
[heɽo]	: derived representation (SCB form)

From the examples in (32), it is clear that the words like [jolo], [kelo], [heɽo] involve a number of processes, and the processes for the respective words also vary. Though these are basically diachronic changes, we can take these as synchronic ones, and grammatical information can explain these in a better and clear-cut way. We have mentioned before that grammatically conditioned changes are originally diachronic in nature, arising out of morphophonemic changes. (To explain all these forms, I have followed Sarkar (1983-84), but differed from him in great many respects. A cursory look at his and mine contentions will prove the point.)

Vowel Harmony in Suffixes

In the SCB, vowel harmony basically affects the stem vowels only. In all our examples given above, either stem vowels induce changes in the stems or the suffixes induce change in the stems. There are few cases in the SCB where the stem vowel induces change in the suffix. Bengali has determiners like /ɽa/~ɽe/~ɽo/ (and also -ɽi, which is irrelevant for our discussion). These depend on the vowels or the stems:

- 33 a. /tin+ɽa/ → [tinɽa] 'the three'
 /du+ɽa/ → [duɽo] 'the two'
 b. /car+ɽa/ → [carɽa] 'the four'
 c. /æk+ɽa/ → [ækɽa] 'the one'

The basic determiner marker /-ɽa/ has two other variants conditioned by morphophonemic changes. If the stem vowel is a high front vowel, then it changes into a corresponding mid vowel, if the stem vowel is a high back vowel, then the mid vowel is a back one. But the problem case is /carɽe/; it should have been /carɽa/ because both the vowels are of the same position (low central vowel). The change in the suffixal vowel cannot but be due to

grammatical conditioning because the same (but not identical) type of environment does not lead to any change in (33c).

For (33a) we can make a rule of the following sort:

$$34. \begin{bmatrix} +\text{syllabic} \\ +\text{low} \\ -\text{back} \\ -\text{front} \end{bmatrix} \rightarrow \begin{bmatrix} -\text{high} \\ +\text{low} \\ \alpha \text{ back} \end{bmatrix} / \begin{bmatrix} +\text{syllabic} \\ +\text{high} \\ \alpha \text{ back} \end{bmatrix} (C) \text{t} ___ \quad (=33a)$$

This rule shows the changes in the suffixal vowels take place when the stems have the high vowels in *du* '2' and *tin* '3' (33a). No change takes place in (33c) as the stem vowel is low. But, the change takes place for the number '4' though here both the suffixal and the stem vowels are low. This change cannot be ascribed to phonological conditioning at the synchronic level. This change in the suffixal vowel is due to lexical-cum-grammatical conditioning. The word /car/ '4', a lexical element, is also a grammatical category indicating number. The change in the suffixal vowel with the number /car/ 'four' can be shown in the following formalism in (35):

$$35 \quad a \rightarrow e / + \text{t} ___ \\ \text{suffix} \\ \begin{bmatrix} +\text{number} \\ +4 \end{bmatrix} \quad (=33b)$$

The formalism in (35) can be explained in the following way: if the word for the number '4' /car/ takes the determiner suffix /-ta/, then the suffix final /-a/ changes into /-e/, without the presence of any harmonising vowel in the stem. It may here be mentioned that the words for the numbers beyond 'four' do not show any harmonic changes in the suffixal vowels even if the conditioning environments for vowel harmony are present, that is, the determiner suffix /-ta/ has been generalised in all the cases beginning from number 'five'.

Double Vowel Harmony

Basu (1975 : 145) argues for "Double Vowel Harmony" for the cases which undergo harmonic changes twice. Some words with

three or more than three syllables containing final /i/ change their immediately preceding /ɔ/ first into /o/, then into /u/. In these cases vowels are raised by two heights. His examples are quoted below:

- 36 “/madɔl+(diminutive) i=maduli/; /naṭɔk+iya=naṭuke/;
 /ɔhɔr+iya=ɔhure/; /chādanikā > chaonia > chauni/;
 /nakhaharaṇikā > nahaharaṇia > naharaṇi > norun/;
 /boṭtom > boṭtumi/”.

Basu (1975) admits that these are the examples of regressive (=anticipatory) assimilation.

Synchronically viewed, some of these examples of anticipatory vowel harmony are the outcome of morphophonemic conditioning, other are examples of grammatical conditioning. The underlying form for the first word in (36) is not /madɔl/ but /madol/, and then with the addition of the diminutive suffix, it has been changed into /maduli/ ‘amulet’. The same can be said about the word /boṭtumi/ ‘a Viashnava lady mendicant’. These can be shown in the following way in (37):

- 37 /boṭtom + i/ → [boṭtumi] ‘a lady mendicant belonging to
 Vaishnava faith’;
 /madol+i/ → [maduli] ‘an amulet (usually shaped like a
 tom-tom: madol)’;

The word /chauni/ is the outcome of phonological change of vowel harmony, and /norun/, though a case of vowel harmony, requires so many stages to explain its development, and, as regards the forms like [naṭuke] ‘histrionic’ and [ɔhure] ‘urban’, we can say that these are the reflexes of grammatical conditioning of vowel harmony, which we have already discussed at length. These can be shown in the following way:

- 38 /ɔhor+e/ → [ɔhure] ‘urban’
 /naṭok+e/ → [naṭuke] ‘dramatic, histrionic’

Mutual Vowel Harmony

Besides progressive (=perseverant) and regressive (=anticipatory) vowel harmony, Basu (1975) cites another type of vowel harmony which he calls "Mutual Vowel Harmony" where the word-medial /a/ by the influence of the preceding /i/ or /u/ is changed (=lowered) to /e/ (progressive or perseverant vowel harmony), and then the output of this is again subject to change by the final /i/ (regressive or anticipatory vowel harmony). We are reproducing in (39) the examples given by Basu:

- 39 a. /bilat/ → /bilet+i/ → [biliti] 'foreign, non-indigenous'
 b. /bhikhari/ → */bhikheri/ → [bhikhiri] 'beggar'
 c. /uṛani/ → /uṛoni/ → [uṛuni] 'veil'
 d. /rupali/ → /rupoli/ → [rupuli] 'silvery'

These can be taken as very best examples of *mutual vowel harmony* because mutual assimilation, or for that matter, mutual vowel harmony, is bi-directional, involving both the processes, anticipatory and perseverant. But on a closer scrutiny of the forms, we are likely to land up with a somewhat different conclusion. The word /bilat/ at a particular state of the SCB became /bilet/ by perseverant vowel harmony (/bilat/ is very much alive as a competing form in the SCB, even at present), and then the addition of the suffix /i/, induces morphophonemic change, it may become /biliti/; it may remain /bilet/ as well. The forms given above can be explained in another way:

- | | | | | | |
|----|---------|----------|-------------|---------|----------|
| 40 | State 1 | /bilati/ | /bhikhari/ | /uṛani/ | /rupali/ |
| | State 2 | /bileti/ | */bhikheri/ | /uṛoni/ | /rupoli/ |
| | State 3 | /biliti/ | /bhikhiri/ | /uṛuni/ | /rupuli/ |

(40) calls for some explanation: State 2 and State 3 are to be taken separately with each word in question—they might have changed at different point in time or simultaneously. So State 2 and State 3 do not necessarily mean Time 2 and Time 3. For this, I believe that the harmonic changes for the words in (39) worked in the way shown in (40): the changes occurred in different states of the SCB, but competing forms were also productive in the states

where changes occurred. However, mutual assimilatory or harmonic processes are sometimes simultaneous (i.e., intermediate stages are not actually attested in a language but posited for the outcome), which can be shown from the following examples in (41):

- 41 OIA *nṛtya* 'dance'
 MIA **ṇacya* (intermediate stage, not attested, but posited)
 MIA *ṇacca* (actually recorded in MIA)

Sometimes intermediate stage(s) for mutual assimilation are attested in the language:

- 42 OIA *ātman* 'soul, self'
 MIA *atpā* (intermediate stage, recorded in Asokan inscription, Girnar Rock Edict)
 MIA *appa* (final output, recorded in Pali and Prakrit)

Like the example in (42), the final outputs of the words in (39) can be taken as the examples of mutual vowel harmony in the SCB, if we take it for granted that the final vowels of the words were responsible for the harmonic changes. It can be added here that these can as well be influenced by the initial vowels of the words concerned. We have evidence for and against the above contention. The word */bilat/* changes into */bilet/* but never **/bilit/*, and to become */bilit/* it requires the support of a final */i/*. Then only it can become */biliti/*. On the other hand, */uṛa/* 'flying' */rupa/* 'silver' (a personal name as well) can become */uṛu/* and */rupu/* (only in the case of personal name). But */bhikkha/* 'begging' which becomes */bhikkhe/* by the influence of the preceding vowel (preseverant vowel harmony) does never change into **/bhikkhi/*. In all likelihood, in all these cases, the final vowels were responsible for the second change, leading to mutual vowel harmony. However, cases of mutual vowel harmony are few and far between.

It has been held that "in some harmonic systems, the harmonizing series are symmetric in that they are of equal power. In a symmetric system, any vowel in a certain position can determine the series of vowels for the words. On the other hand, an asymmetric system has one series dominating the other. In such systems, the presence of a dominant vowel in a word changes the vowels of the non-dominant series" (Aoki 1968). If we accept the vocalic changes so far discussed as the cases of vowel harmony, then, we can say

that the Bengali harmonic system is neither symmetric nor asymmetric. In Bengali, mainly four vowels and one semivowel induce the changes in the phonological cases of vowel harmony. Moreover, all the seven vowels we have in Bengali undergo the harmonic changes. The high vowels change the non-high vowels by one height (raising); the low central vowel lowers the high vowels by one degree (lowering) the mid back vowel also lowers high vowels by one height. The condition for the phonological cases of vowel harmony is that the harmonising and the harmonised segments should be distanced by at least one height, the distance may be of two heights in some cases. Only in some cases (but not in all) of grammatically conditioned changes, the vowels may be of the same height, in those cases too height change takes place. Bengali vowels cannot be characterised as dominant or non-dominant. If by non-dominance, we want to mean non-participation of the vowels in the harmonic process as the harmonisers, then only /æ/ and /ɔ/ can be called non-dominant vowels. These two vowels undergo the changes, but they never act as the conditioning environments.

At the outset we have said that vowel harmony in Bengali is neither harmonic nor assimilatory in nature : this is a *feature changing process* by which vowels are raised or lowered by the influence of the vowels or the semivowel /y/. In English, there is no such term as to indicate the raising and lowering phenomena. We are not happy with the terms used in literature. For the phenomenon we have discussed in the paper, the term *vowel attraction* may serve our purpose.

References

- Anderson, Stephen R. 1974 *The Organization of Phonology*. New York: Academic Press
- Aoki, Haruo 1968 "Towards a Typology of Vowel Harmony." *International Journal of American Linguistics* 34 142-45
- Basu, D. N 1975. *Modern Principles and History of the Bengali Language* (in Bengali) Calcutta Puthipatra
- Nath, M K 1996 "Bengali 'Epenthesis' Revisited Over and Again". *Bulletin of the Department of Linguistics*. No. 12. 27-38
- Ramarao, C 1976. "Vowel Harmony in Telugu " *Papers in Linguistic Analysis* 16 25-36
- Sarkar, P 1983-84 "A Proposal for the Changes of the Nomenclatures like *svarasangati*, *apinihiti*, *abhisṛuti*, *apaśṛuti*" (in Bengali) *Bhāṣā* 3:1 50-60

COMPOUNDING OR DERIVATION?

SUMITA BHATTACHARYA

Compounds of a language should be discussed in between morphology and syntax because a compound is a transformed version of a sentence of which at least two words are juxtaposed in such a way that their semantic relationships are never understood from the surface structure. This juxtaposed form is always treated as equivalent to a single word morphologically and syntactically. The underlying sentence is termed as *Vyāsa Vākya* by the Sanskrit grammarians.

One type of words is productively and frequently formed in Bengali of which the first component is always a non-Sanskrit free morpheme and the last component is a Sanskrit element which forms a part of Sanskrit compounds as a last component. This last component is used either as a bound morpheme in Bengali or as a free morpheme with a different meaning. The last members of this type of words are —

- 1) Sanskrit past participles used always as bound morphemes in Bengali.
- 2) Sanskrit past participles used as both free and bound morphemes in Bengali in different senses.
- 3) The last components of Sanskrit *Upapada Tatpuraṣa* compounds which are always attached with a primary derivative suffix.
- 4) The last components of Sanskrit *Bahuvrīhi* compounds, which are affixed with a secondary derivative suffix. Examples will clear the statement.
 1. i) Bengali *myāleriyā-grasta* 'suffering from Malaria'
cf. skt. *vipada-grasta* 'someone who is in danger'
 - ii) Bengali *āin-saṅkrānta* 'related to law'
cf. Skt. *dharma-saṅkrānta* 'religious'

It is to be noted that the last components are not used as free forms in Bengali.

2. iii) Bengali *tārikh-hīna* 'undated'
 cf. Skt. *vidyā-hīna* 'uneducated'

The last component *hīna* when used freely in Bengali means 'mean' but in combination it means 'less'.

- iv) Bengali *āin-gata* 'legal'
 cf. Skt. *gṛhagata* 'who has gone home'

The last component 'gata' means 'gone' when used freely in Bengali. It has no connection with the last component of the combined word *āin-gata* from the semantic point of view.

3. v) Bengali *cākri-jīvi* 'serviceman'
 cf. Skt. *dīrgha-jīvi* 'one who lives long'
- vi) Bengali *kabara-stha* 'laid in grave'
 cf. Sanskrit *gṛhastha* 'one who lives in home'
4. vii) Bengali *chātā-hastaka* 'one who has umbrella in his hand'
 cf. Skt. *lekhanī-hastaka* 'one who has pen in his hand'
- viii) Bengali *jaṅgala-pratima* 'like a jungle'
 cf. Skt. *anuja-pratima* 'like a younger brother'

Some of the last components of Sanskrit compounds which work as suffixes in forming Bengali words are given below.

-hīna, -bihīna, -cyuta, -śuddha, -saṅkrānta, -gata
-sampanna, -grasta, -jāta, -bhukta, -bāsī,
-vartī, -biharī, -śāyī, -kar, -kār-kārī, -vāhī,
-dharmī, -dehī, -veśī, -nirapekṣa, -sāpekṣa, -nāmaka,
-manaska, -pratima -pūrvaka etc.

These are combined with non-Sanskrit words and as a result unlimited number of new words are formed in Bengali.

Apart from these there are some Sanskrit words which are not used in Bengali. These also form the last component of such type of combination. For instance, Sanskrit *śālā* 'place', *śaha* 'with' *pravāṇa* (inclined), *vatsala* (affectionate), *saṅkula* (full of) etc. can be mentioned.

dhēki-sālā 'the place where *dhēki*, an instrument used for husking, is kept.

cf. Skt. *pāṭha-sālā* 'the school'

This type of hybrid combinations are analogically formed on the model of Sanskrit compounds but should be considered as complex words because of their construction. They do not follow the characteristics of compounds since both the members present in such combinations are not free. Two free forms of Bengali are not present in these words.

Dr. S. K. Chatterji (1942) was also in confusion. He has grouped the words formed with the word *jāta* as last component in both the categories of words-complex and compound. He gave the example *paketa-jāta* 'kept in pocket' as a complex word. He has shown *-stha* the last component of Sanskrit *Upapada Tatpuruṣa* compounds as a Bengali suffix and has given the following words as complex words -

śrīṭastha 'situated on the street'

lenastha 'situated in the lane'

bahubājarastha 'situated at Bahubazar'

Laṇḍanastha 'situated in London'

Sanskrit word *śuddha* means 'pure' but it means 'with' in the combination. Both *śuddha* and *saha* 'with' have been shown by him as Bengali suffixes.

Thus it is obvious that components of compounds of one language may act as affixes in another language. Analogy plays a great role in this type of combinations. This type of analogical creations has made the Bengali language flexible and rich.

Reference

Biswas, Birendranath, 1971. *Ravindra Śabdakoṣa*, Calcutta.

Chattopadhyaya, Suniti Kumar, 1942. *Bhāṣa Prakāśa Bānglā Vyākaraṇa*, Calcutta, pp 197, 214

DISCURSIVE CONCEPTIONS AND THE COMMUNITY KERALA POST 30'S

SELVYN JUSSY

Kerala has the distinction of having the first elected communist ministry in 1957. The discourse that interpenetrated everyday life in Kerala, that led to this event, is distinguished as much in its novel 'Imaginings' as in the force of its 'lived reality'. Significant changes in the world have reified this discourse and shown it in sharper relief. The events that inspired and coloured a generation of masses in Kerala through the Communist movement are none too antiquated. In fact they are recent enough to be called contemporary. The recent past has however seen so many changes that the movement of events, ideas and the collective imagination, appear disproportionate with the passing of calendrical time. This disjuncture permits an early periodisation of events not too far in the early past. Consequently this interrogates and leaves a sense of unease with notions of the word 'History'. History-conjuring up vast rhythms and expanses of time is conflated and dense as it gathers itself in multiple ways around a mass of events and is relegated into the vortex of time. That which moved with its own logic and momentum has loosened itself from its transitions and cordoned itself into PERIOD.

The turn of this century had seen the first rumblings of dissent in an organised form against the intense discrimination that the caste system had perpetuated. Kerala had the distinction of a particularly oppressive order based on caste identity and difference, which took into account a version of untouchability with elaborately worked out distance restrictions. Understandably, the economic conditions too were skewed in favour of the elite castes-primarily estate holding gentry in an agricultural economy. Rapid changes in the second half of the 19th century offered opportunities to better circumstances and enhanced the mobility of the tenant and agricultural labour. It also provided scope for escape from the oppression of the upper castes. Under the dispensation of a feudal economy, the lives of both land lord and serf were inextricably linked with the estate. The estate itself, the oppressive conditions notwithstanding, operated on the principle of an extended household, self-sufficient to a large extent. This included a granary from which

the labourer often mitigated his extenuating circumstances through the largesse of the landlord. The tenant and the labourer were tied to the estate through structured mutual obligations that were inherently coercive. Thus an inhabitant drew his identity primarily from two sources—the estate to which he was attached and the caste to which he belonged.

What was to become Kerala in 1956, was essentially three provinces at the turn of the 20th century. Malabar in the north under the Madras Presidency, Cochin and Travancore. Cochin and Travancore were subsidy paying princely states. The movement of events in the three provinces subject to different administrations therefore took different shapes. However, these differentiations are unaddressed as they are beyond the scope of this paper. What is relevant is that land reforms in Travancore, and replicated to some extent in Cochin, the waves of fortune in coconut and spices trade, the opening up of reclaimed land providing a favourable land to labour ratio, missionary activity and burgeoning educational activity was inexorably changing the social map of Kerala.¹

The changing environment, however, offered a new opportunity and new mobility. The politico-administrative apparatus also grudgingly opened its doors to the lower castes as more of them became eligible through education.² The creation of departments like the PWD offered employment opportunities outside of agriculture. Importantly, the workings of the administrative machinery, that principally the colonial administration had ushered in proffered a new sense of identity. The processes of mapping, classification and enumeration that was embarked upon ushered in a counting of collectives that breached the estates laterally, mapping out a taxonomy of people across larger landscapes.³ An upwardly mobile Ezhava in these times of opportunity, was acutely aware of the debilitating role of his caste. To him, the knowledge that he constituted part of the 16% of the populace acquired a new significance.⁴ This took concrete shape in the form of the SNDP in 1903. Significantly, in the census of 1931, the Ezhavas recorded themselves as a single caste as against 22 subdivisions in the 1891 census⁵. The organisation had done its job, and well.

The other castes followed suit, forming their own organisations. In the event, these movements generated a new language—the lower

castes seeking the loosening of restrictive caste practises that inhibited their progress, while progressive upper castes sought dismantling of rigid structures that were anachronistic and eroded their affluence. Their discourse was not without elements of rationality that the colonial administration had effected. An intrinsic part of British rule, and of which missionary activity was a part, was the establishment of the discourse of rationalist modernity that sought to legitimize their mission in these parts of the world.⁶ This discourse made little of caste arrangements, proffering a system negotiated by the market.⁷ The benefits accruing to the lower castes interlocked gainfully with the messianic role of the discourse of modernity. Conceptually, the geographical boundaries established by the estates where eroded while retraining the hierarchial bindings.

The years after the first World War saw an upsurge in political activity, essentially moving in tandem with the national movement. The exigencies of the national movement militated against the languages of caste. What the discourse of the nation demanded was a conception that was boundary oriented, demarcated by the geography of the nation and horizontal, that located the masses as the People of the nation. This discourse was Janus faced, and necessarily so, in that it carried in it the other—the discourse of anti-imperialism. In its articulation the nation constructed itself as much on its the perceived internal coherences as on the discourse of colonialism. The spatial expression of a unitary people would ideally present itself as a unisonant voice—as a one out of many, the founding dictum of the political society of the modern nation.⁸ However within a culture of social contestation the narratives of the nation developed differing accents, plural discourses that interrogate and enter into dialogues with each other.

The post 30's in Kerala was the site of just such contestations. The ebbing language of caste, nationalist articulations that hammered out the hierarchies into unisonat voices, and the language of class whose hierarchy drew a different pattern of the community. The establishment of the Congress socialist Party and subsequently the Communist party represented a significant break within the national movement, towards the Left. Karshaka Sanghs, Thozhilai Sanghs, teachers unions, student organisations sprang up throughout the length and breadth of the state. This period is also demarcated by

the intense peasant and trade union struggles across the state. What forms and shapes, and what conceptions did the representation of these social contestations take within the narratives of the period, of which the communist movement emerged as the major strand?

To begin with there was a burgeoning of literary activity that was hitherto esoteric. The literature that was itself meagre and recent, was highly sanskritised, dealing with and catering to the sensibilities of the elite castes. There was dramatic shift in the language to that of the popular language, articulated by, and intelligible to the masses. The language that was spoken at the market place, at home, in the day to day interaction, wove their way into the text. Functionally it served to communicate and disseminate information to a larger reading and listening public. However there was a certain element of inevitability to this development. For it was not noisy kings, noble gentry and nimble maidens who traipsed through the world of the text. It was now occupied by the rickshawpuller, the labourer, the fisherman—those hitherto voiceless marginalised sections and their world. It was their day in the sun. The world gets animated through the eyes of the impoverished, and the elite from the diaspora who trespass as perpetuators of a structure of violence.

Changing times and the debris of Tradition

The narratives of ancient civilizations have always constructed themselves around a certain timelessness. The origins of the civilizations, and the grid of social customs, most often rest in the creation of the Universe, in God or in some mythical being. Kerala is no exception—whose creations and social mores are drawn from the legend of Parasuram. In the literary genres of the 30's and after, timelessness encounters time. The *joi de vivre* of a resurgent people encounters the requiem of a changing order. In Thakazhi's 'Chemmeen'⁹ the right to own a boat is no more the monopoly of the Valakaran¹⁰. Chembankunju, a Mukuvan, goes on to own two boats. Chembankunju's aggressive pursuit of wealth tramples on time-honoured traditions of obeisance to the village Headman, which in turn invokes a coercive action to extract payment. Chembankunju grudgingly submits to tradition. But within the discourse of the community, the interrogation of tradition has begun. "A man buys

his own boat and net with his own hard-earned cash. Why does he pay the Headman for that?"¹¹ elicits no reason from the community. In Kesav Dev's 'From the Gutter' Pappu's proud canter as rickshawpuller marks time through the novel leading to better circumstances for Lakshmi, his adopted daughter. And in Damodaran's 'Pattabhaki' a constant lament of the landlord and his lackeys is one of changed times. "The tenants were earlier respectful, now for everything they argue".¹² "Even those servants not worth half a pie do not obey us nowadays."¹³ The refrain of changing times that marks the discourse is accompanied by an interrogation of customs sanctioned by tradition.

Even though Karuthamma submits to the custom of marrying within the community, the denial of her love for a Muslim and the logic of that denial are questioned only to be confronted by the silences of an unreasoned tradition.¹⁴ The earlier matrix that commanded respect and unquestioning compliance—caste and wealth—had little merit. "They (the labourers) do not respect the advice of those with some standing and worth".¹⁵ "No caste, no religion, nothing. Hai! what a way to destroy our lives. They need nobody. They have begun to feel that there are no lords".¹⁶ From this irreverence and debris of traditional sources of authority have risen the Pappus and Kettunni's, whose labour and its dignity heave against the weight of tradition. While established structures of power, are often weighty enough to contend with these 'outrages' against tradition, what is noteworthy is that the narrative space is crowded with the language of dissent. The representation of this community of dissent was premised on a community of oppressors, not as individual nodes of power but as part of an order. A. K. Gopalan recounts a story that his grandmother narrated to him to show the extent of their authority. "There was a poor peasant called Kannan. Some land belonging to our family had been entrusted to him for farming. He had a house of his own and some fruit trees. An obedient peasant, he would turn in the rent regularly whether the harvest was good or bad. He used to go to catch fish daily. He had his own net and other fishing accessories. Any good fish that he caught would be turned over to the landlord. Anything of value that chanced to come into the hands of the peasant was for the landlord. One document or the other would state that any big jack-

fruit on the northern branch of the jack-fruit tree standing on the south-northern side of the peasant's house should be given to the landlord. If the peasant happens to be a hunter, a large share of the flesh of any deer and rabbits caught by him has to be gifted to the landlord. Our Kannan caught a large crab one day. His children pulled out one of its legs and cooked and ate it. Kannan was worried. He knew the consequences of delivering the crab in this manner to the landlord and of not delivering it at all. He approached the landlord in great fear. The landlord was angry. He decided to punish him for slighting him. He was locked up in a room and fumigated. The poor peasant started wailing. He cried out that he would surrender all his valuables".¹⁷ To begin with this is a 'rogue' narrative. The choice of words and its accentuation do not present themselves as a legitimate discourse of authority. It only serves to underline the inhuman nature of the landlord and the system. "He had his own net and other fishing accessories" is an interjection only to locate and to highlight the unjust character of the obeisance, while "... jack-fruit tree standing on the south-northern side of the peasants house" showers ridicule. A. K. G. has engaged the grandmother's narrative and submitted it to the logic of his discourse. Intended as a proud narrative of authority, this reified discourse provides the logic for A. K. G.'s community of dissent. "I realised that the landlord was living on wealth amassed in his manner by fumigation and expropriating poor people like this peasant".¹⁸ The landlord is not this particular landlord but landlords in general, or more relevantly, a community of oppressors and their rule. Small wonder then, that Mohammed in 'Pattabhaki' holds forth that "Today all rights are only with the rich class. For those rights and governance, we workers, farmers and middle classes should struggle unitedly and capture."¹⁹ Mohammed, like others, enumerates this fraternal community that constitutes the community of dissent — workers unions, farmers unions, students, workers and unemployed.²⁰

The discourse of rationality that the colonial administration had put in place was trained against them and their agencies to organise dissent. Elsewhere Kaviraj has shown how Bankim Chandra Chattopadhyay has used the judicial courts, itself a site of the discourse of rationality, as the terrain for a subversive discourse that propagated a national agenda,²¹ Parallels are to be found in A. K. G's deposition

and his interrogation of a constable in court, using the very same structured discourse of the courts to show how unjust justice was, validating dissent and the need for the community of dissent.

It is no co-incidence that this period is interwoven with a plethora of narratives that enunciate this discursive pattern. The extrapolation of individual experiences through these narratives into the broader framework of a community was a constitutive force in the construction of a fraternal community.²²

Notes and References

1. *A whole host of works have recorded this changing scenario in Kerala at the turn of the 20th Century : Robin Jeffery, Decline of Nayar Dominance · Society and Politics in Travancore, 1847-1908, New Delhi, 1976. Dilip Menon . Caste, Class and Nationalism in South India CUP 1995 Genevieve Lemercinier and Francois Houtart · Socio-Religious movements in Kerala A Reaction to the Capitalist Mode of Production Social Scientist Vol-6 No. 11 June'78.*
2. *EMS Namboodiripad : Kerala Society and Politics, National Book Centre 1984. Pg 102*
3. *Benedict Anderson has so cogently argued how the census and the map have played a vital role in the 'Imagined Community' of the nation See especially his chapter 10, Census Map, Museum in Benedict Anderson Imagined Communities, Verso 1991.*
4. *Census of Travancore, Report 1875 Pg. 231.*
5. *Chandra Mohan. P. Popular Culture and socio-Religious Reform . Narayana Guru and the Ezhas of Travancore. Studies in History 3 1 n s. 1987 Sage Publications. Pg. 66.*
6. *kaviraj. Sudipto : On the Construction of Colonial Power : Structure, Discourse, Hegemony. Occasional Papers on History and Society Second series No. XXXV*
7. *EMS Namboodiripad. . op. cit : Pg. 102.*
8. *Homi. K Bhabha : Nation and Narration, Ed. Routledge 1994.*
9. *Thakazhi Sivashankara Pillai Chemmeen, Jaico 1988. Translated by Narayana Menon.*
10. *ibid . Pg 30.*

11. *ibid* · Pg. 31.
12. K. Damodran : Pattabakky, India Press. Kottayam, 1985, Pg. 12.
13. *ibid* : Pg. 22.
14. Thakazbi : Chemmeen
15. K. Damodaran : *op. cit.* Pg. 23.
16. *ibid* . Pg. 41
17. A. K. Gopalan : *In the Cause of the People* Sangam books, 1976. pg. 56.
18. *ibid* · Pg. 57.
19. K. Damodaran, *op. cit.* Pg 53.
20. *ibid* . 53
21. Kaviraj. S : *the Unhappy Consciousness. Banikmchandra Chattopadhyay and the formation of Nationalist Discourse in India.* OUP. 1995
22. Kaviraj does not ascribe any mystically sufficient causal powers to discourse. Rightly he emphasises the Conceptual element in all these because the constitutive significance of discourses have not been recognised. *On the construction of colonial Power.* pg. 23.

SYLLABIFICATION IN BANGLA

MINA DAN

Introduction

Bangla syllabification has hardly been the subject of primary interest in the studies of Bangla phonology as all most all the works in this field develop their studies on the basis of so-called intuitive syllables.

Even in the field of Bangla phonetics, the two most representative works, viz. Chatterji (1928), and Kostić and Das (1972), dealing with the articulatory and acoustic aspects of Bangla phonemes respectively, do not discuss Bangla syllabification at all.

As a result, on the one hand, not even a handful of studies deal directly with the syllabification of Bangla words, and on the other hand, the rules of syllabification in Bangla, as they are available in these handful of studies, are yet to be compiled together under one suitable title of their own right.

The present paper attempts to list the rules of syllabification in Bangla, as they are scattered in the literature, reported either in English or in Bangla.

Sec. 1 will provide a brief survey of the literature; Sec. 2 will discuss the rules; the canonical syllable patterns of Bangla will be listed in Sec. 3, which will be followed by a conclusion.

1. Literature survey

In the literature, both linguistic and nonlinguistic, only a few studies give Bangla syllable and syllabification a place for discussion. Among the nonlinguistic ones such discussion is found in the essays of Tagore, Dwijendralal Roy, Satyendranath Dutta, Sasanka Mohan Sen, Vijay Chandra Majumder, Dilip Kumar Roy, the poet metricists, and Prabodh Chandra Sen and Amulyadhan Mukhopadhyay, the grammarian metricists. These studies, though they heavily rest upon the concept of syllable in Bangla and offer scattered observations about them, they hardly provide any overt and systematic rule of Bangla syllabification.

Among the linguistic studies I shall mention here four, viz. Hai (1964), Sarkar (1979), Sarkar (1986) and Dan (1992). All these works are descriptive in principle and appear to agree with Pike's (1943 : 116) statement that 'real syllables are those which the ear is psychologically capable of distinguishing'.

However, among these four, Hai (1964) deals with syllabification in a few dialectal varieties in Bangla which does not appear to be very useful for a preliminary purpose of establishing a general norm of Bangla syllabification, like the present one.

Sarkar (1979) strictly deals with the Standard Colloquial Bangla of Calcutta and the reporting here is made in Bangla.

Sarkar (1986) is an improved version of Sarkar (1979).

Dan (1992) mainly reports Sarkar (1986) along with a few observations of its own.

The rest of this paper will provide a fairly straightforward recapitulation rather than a critical discussion of Sarkar (1979), Sarkar (1986) and Dan (1992).

2. Rules of Syllabification

In Bangla the most preferred as well as the most natural syllable pattern is CV, a fact that conforms to the syllabic universals proposed by Jakobson (1941)¹ and others. And the syllable boundaries too, in conformity with Hooper's (1972, 1976) 'Universalist' approach, are assigned to the beginnings and ends of words, though the rules of syllabification cut across morpheme boundaries and thus facilitate a higher frequency of occurrence of the unmarked syllable pattern CV than the others. For example, the word *aSe*, i.e. *aS* 'come' + *e* 'third person, inferior, present' is syllabified as *a-Se*.

Apart from the unmarked syllable pattern CV Bangla shows many other patterns also. All these patterns are obtained from different syllabification rules which may be dealt with under two headings, viz. the phonotactic restrictions and the treatment of consonant sequences.

2.1 The Phonotactic restrictions

The phonotactic restrictions involved in syllabifications are as follows :

- R-1. Except for vowels no other sounds in Bangla bear the feature [+syll] which denotes the ability to be the peak of a syllable.
- R-2. In Bangla the unitary V+V sequences, i.e. the true diphthongs,² never consist of a first member which is higher than the second and interpretable as being [-syll].
- R-3. In Bangla only semivowels can occur as the second member of a diphthong.
- R-4. Word initial semivowels or glides are not quite frequent in Bangla and hence the syllabification of a word internal sequence of diphthong followed by a vowel often is as diphthong plus syllable boundary plus vowel, e.g. *OYon* 'orbit' is syllabified as *OY-on*.³

2.2. The treatment of consonant sequences

In the existing literature there are two quite exhaustive lists of Bangla consonant sequences, viz. Mallik (1960), and Hai (1964).

Mallik gives a list of over 270 consonant sequences,⁴ whose distribution could be tabulated as follows :

SEQUENCE PATTERNS	NO OF TYPES OCCURRING INITIALLY	REMARKS	NO OF TYPES OCCURRING MEDIALY	REMARKS
CC	25	either 1st member is <i>s</i> , or 2nd member is <i>r/l</i>	235	—
CCC	1	<i>str</i>	8	3rd member is always <i>r</i>
CCCC	—	—	1	<i>NSkr</i>

According to Hai (1964 : 323) Bangla has 36 consonant clusters which remain intact word initially; 26 homorganic consonant

sequences; 19 homorganic nasal + plosive sequences; and 250 other consonant sequences.⁵

But, for syllabification, the data used by Hai (1964) is less useful than that of Mallik (1960), because hai (1964) considers the consonant sequences in terms of continuous speech and as a result quite often there is a word boundary between the members of a consonant sequence.

In contrast, the data used by Mallik (1960) are drawn only from intraword consonant sequences, truly relevant for syllabification.

The above discussion establishes the fact that Bangla has various types of intraword consonant sequences, and the syllabification rules of such sequences may be listed as follows :

- R-5. The word initial clusters⁶ become the onset to the following syllable, e.g. the cluster *tr* is the onset to the peak *i* in the word *tri-no* 'grass'.
- R-6. Word final CC sequences⁷ form the coda of the preceding syllable, e.g. the sequence *rD* is the coda to the peak *a* in the word *hom-garD* 'home guard'.
- R-7. Word medial intervocalic CC sequences, except those with *r/l* as the second member occurring in tatsama⁸ items, may be either homorganic or heterorganic. However, all intervocalic CC sequences (regardless of whether they are homorganic or heterorganic) are heterosyllabic, the first member of the sequence being the coda of the syllable to the left and the last member being the onset of the following one, for example, the sequences *rb*, *Sc*, *tt* and *kkh* are divided between two syllables in the words *pur-bo* 'east', *poS-cim* 'west', *ut-tor* 'north', and *dok-khin* 'south'.
- R-8. In the case of a word medial CC sequence with *r/l* as the second member, the first member of the sequence is geminated and thus results in a CCC sequence. Then the first member of the CCC, i.e. the CC*r/l* sequence, becomes the coda of the preceding peak, and the second and the third members, i.e. the *Cr/l*, together form a cluster which becomes the onset of the following syllable. For example, the sequences *ttr* and *mml* in the words *put-tro* 'son', *mat-tra* 'mora', *Om-mlan* 'untarnished' etc.⁹

- R-9. The word medial CCC sequences, as Mallik (1960) observes correctly, have *r* as their third member.¹⁰ In such sequences the syllable boundary is placed right after the first member. In other words, the first member becomes the coda to the preceding peak, and the second and the third members together form a cluster which becomes the onset to the following peak, for example, the sequences *str*, *ntr*, and *Spr*, in the words *Os-tro* 'weapon', *mon-tri* 'minister', *niS-pran* 'lifeless' etc.
- R-10. There is only one word medial CCCC sequence, which is *NSkr* (Mallik, 1960). The syllable boundary is placed between the second and the third members of the sequence, that is, here the first and second members form a 'closer combination than sequence',¹¹ which becomes the coda to the preceding peak, and the third and fourth members form a cluster which becomes the onset to the following peak, e.g. *SONS-kriti* 'culture'.

Among the above rules, rule 7 has the highest number of exponents in the language in terms of both types and tokens.

3. The canonical syllable patterns of Bangla

On the basis of the actual Bangla data Sarkar (1979, 1986) lists some 16 canonical syllable patterns in Bangla which are in conformity with the above 10 rules. These canonical syllable patterns, along with relevant examples, arranged in descending order of frequency, as worked out in Sarkar (1986), are as follows :¹²

CANONICAL SYLLABLE PATTERN	EXAMPLE	
CV	ki	'what'
CVC	phOl	'fruit'
V	o	'she/he'
VC	Ek	'one'
VV	ey	'this'
CVV	koy	'where'
CCV	sri	'Mr.'

CCVC	gram	'village'
CVVC	bayS	'twenty two'
CCVV	praY	'almost'
CCVVC	kloyb-bo	'timidity'
CVCC	SONS-krito	'Sanskrit'
CCCV	stri	'wife'
CCCVC	strir	'wife's'
VVC	ayn	'law'
CCCVV	stroy-no	'henpecked'

Among these 16 patterns, CV has the maximum number of exponents, approximately 54%, and CCVVC, CVCC, and CCCVV — these three have no monosyllabic exponent in the language.

Conclusion

These 10 rules of syllabification in Bangla, based on the descriptive analyses of actual Bangla data, reported in different works, viz. Mallik (1960), Hai (1964), and Sarkar (1979, 1986), may be considered as the basic rules in the syllable phonology of Bangla.

On the basis of these rules and in accordance with the current principles of the field of macro phonology, viz. sonority scale, sonority hierarchy, and sonority sequencing generalization, a template and the specific conditions for the terminal nodes of the template could be obtained for Bangla monosyllables.

Notes

- 1 According to Jakobson (1941) CV is the unmarked syllable pattern.
- 2 See Sarkar (1985-86).
- 3 This is not an uncontroversial restriction, but rather a problem area.
- 4 Mallik (1960) does not distinguish between sequence and cluster, rather he prefers to name all the sequences as clusters. Even the geminated sounds are termed by him as clusters
- 5 Hai (1964) uses the term compound consonant for all types of consonant sequences

6. Words consisting of CC (C) clusters belong to the borrowed level of Bangla vocabulary (Sarkar, 1986)
7. Only a few borrowed elements show final CC sequences. On the whole, SCB phonology tends to avoid more than one consonant word finally, even in the case of borrowed items (Sarkar, 1986).
8. Sanskrit words that are more or less unmodified in Bangla.
9. This rule of gemination applies only to the level of tatsama vocabulary as is mentioned in rule 7. In case of typical Bangla words such a rule does not apply, e.g. *SaMi-ra* 'a surname', *Sap-la* 'a type of water weed'
10. The only exception to his observation is the sequence *Nsk* to which the application of rule 9 produces quite counterintuitive results. As for example, *SON-Skar* 'renovation' is less acceptable than *SONS-kar* (Dan, 1992)
11. I prefer to call such a syllable final but not word final sequence a 'closer-combination-than-sequence' because they differ, on the one hand, from the clusters (which may be considered as the closest combination), as unlike clusters this does not have any initial or onset occurrence; and on the other hand, from the word final CC sequences, as unlike the second member of the word final CC sequences, the second member of this CC sequence has choice between the preceding and following peaks to join with — which amounts to say that the second member of the syllable final but not word final CC has become the part of the coda of the preceding peak by choice rather than by force
12. Here VV stands for diphthongs

References

1. Chatterji, S K 1928. *A Bengali Phonetic Reader*. University of London Press. London
2. Dan, M 1992 *Some Issues in Metrical Phonology of Bangla : The Indigenous Research Tradition*. Unpublished Ph D dissertation. Pune University
3. Hai, M A 1964 *dhoni biggEn o baNla dhoni-tOtto*. Bengali Academi Dacca.
4. Hooper, J.B 1972. The Syllable In Phonological Theory. *Lg.* 48. 525-40
5. ——— 1976 *An Introduction To Natural Generative Phonology* Academic Press New York

6. Jakobson, R. 1941 *Child Language, Aphasia And Phonological Universals*. Originally published in German English translation, Allan R. Keiler. 1968 Mouton. The Hague.
7. Kostić, D. & R. S. Das. 1972. *A Short Outline Of Bengali Phonetics*. Statistical Publishing Society Calcutta
8. Mallik, B. P. 1960 Phonemic Analysis Of The Consonant Clusters In Standard Colloquial Bengali. *Bulletin of the Philological Society of Calcutta* 1:2. 37-46
9. Pike, K L 1943. *Phonetics*. University of Michigan Press Ann Arbor
10. Sarkar, P. 1979 syllable-tOtto o baNla bhaSar syllable-er gOThon. Sengupta (ed) *bibhab*. 10 April-June. 33-54
11. ——— 1985-86 baNla diSSOr dhoni *bhaSa*. 4-5. 10-22.
12. ——— 1986 Aspects Of The Bengali Syllables. Paper presented in the National Seminar on Syllable in Phonetics and Phonology. Osmania University. Hyderabad.

A NOTE ON ERGATIVITY IN BANGLA

MRS. KRISHNA BHATTACHARYA

Introduction

The term 'ergative' has been derived from a Greek verb meaning 'cause', 'bring out', 'create' (Lyons, 1968 : 352), (cf. Gk. *érgátēs* workman + -IVE). The term is used in different ways but in a related sense in linguistic literature. It refers to a particular type of constructions in language. Lyons (1968 : 342) states "syntactic parallelism between the 'goal' of a transitive verb and the subject of an intransitive verb is generally referred to as 'ergativity'." Again in Lyons (1970 : 320), it is used for "the case of the subject of a transitive verb when this differs from the case of the subject of an intransitive verb". Dixon (1979 : 60) characterizes the phenomenon in this way : "A language is said to show ergative characteristics if intransitive subject is treated in the same manner as transitive object and differently from transitive subject."

Ergative constructions are found in many languages of the world, such as Eskimo, Basque, Georgian, Dardic, Shina, Tibetan, some Caucasus languages, some Australian languages and so on. In these languages the subject of an intransitive verb displays the same case as that of the object of a transitive verb and the subject of a transitive verb shows a different case inflection. For example, we can present the following Eskimo and Basque sentences :

Eskimo :

1. qimmi - p agna - q taku - b - a - a
dog - ERG woman - Acc. see - Pres.

'The dog sees the woman'

2. qimmi - q agna - p taku - b - a - a
dog - Acc. woman - ERG see - Pres.

'The woman sees the dog.'

(Lyons, 1968 : 341)

In these two transitive sentences -*p* marks the actor or agent and -*q* the patient of the action. So, *qimmi* - *p* in (1) and *agna* -

p in (2) are the subjects of the two sentences respectively. But with an intransitive verb both the nouns *qimmi* - and *agna* - would have the suffix - *q* in the translations of the sentences like 'The dog runs away' and 'The woman runs away.'

Basque :

3. Gizonak ogia jan du
 the man - ERG. the bread eaten has

'The man has eaten the bread.'

4. Gizona ethorri da
 the man arrived has

'The man has arrived.'

(Asher, 1994 : 450)

Here *Gizonak* in (3) being the subject of a transitive verb is marked with a case inflection - *k* whereas *Gizona* in (4) being the subject of an intransitive verb is unmarked resembling *ogia* in (3), which is the object of a transitive verb. Furthermore, a similar pattern of verb agreement is also observed in this case.

This concept of ergativity has been extended to English and other languages which do not show the relationships as overtly as Eskimo and Basque do. For example, we can consider the following pairs of English sentences :

5. a) The window broke.
 b) The man broke the window.
6. a) The ball moved.
 b) Kamal moved the ball.
7. a) The door opened.
 b) Sumana opened the door, and so on.

The relationship between the (a) and (b) sentences in each case is known as ergativity (See Jacobsen, 1977 : 453f). Ratford (1988 : 374) also expresses the same idea : "An ergative structure is one in which an expression which normally functions as the object

of a given transitive verb is used intransitively as the subject of the verb." For example, we can quote the following pair of sentences :

8. a) John rolled the ball down the hill.
b) The ball rolled down the hill.

(ibid. pp. 374)

In 8 (a) *the ball* is the object of the verb *rolled*. But in 8 (b) it is the subject of the verb.

At this point we must note that from the point of view of role relations the intransitive-transitive pairs of Eskimo and Basque sentences as mentioned above, are different from those of the English sentences.

It is evident from the gloss that the subject of the intransitive verb and the object of the transitive verb in the intransitive-transitive pairs of Eskimo and Basque sentences have different grammatical roles. They do not also play the same thematic role. On the other hand in English the subject of the intransitive sentence and the object of the corresponding transitive one though differ in surface grammatical function, play the same θ - role.

Keeping these issues in view we can now turn our attention to Bangla. The present paper attempts at giving some observations on the position of Bangla so far as ergativity is concerned.

Evidence of Ergativity in Bangla

Bangla is basically a nominative/accusative language. In fact, an ideal ergative system is not available in any of the Indo-European languages (Lyons 1968 : 357). But in Bangla evidence of partial ergativity is observed in case of inanimate nouns when they occur as subjects of some intransitive verbs as well as objects of their corresponding transitive forms without having any formal change.

Bangla Verbs and Ergativity

In Bangla there are some primary (i.e. not derived) monosyllabic and disyllabic verbs which can take inanimate intransitive subjects and the same expressions can occur as objects of their corresponding transitive verbs. In both cases the inanimate nouns are unmarked

and thus identical in formal shape. Furthermore, in such cases though grammatical roles of the inanimate nouns are different, their thematic roles are observed to be the same.

The verbs can be categorised in the following way :

Category I : Monosyllabic

Both intransitive and transitive.

bhaN- 'break', khol- 'open',
cheMR- 'tear', bhOr- 'fill' etc.

Category II : Monosyllabic

Intransitive

cOl- 'move', baj- 'blow',
bhaS- 'float', pOR- 'fall',
oR- 'fly', nOR- 'move',
phoT- 'bloom', pak- 'ripen',
nac- 'dance' etc.

To get the transitive form a derivational suffix - *a* is added to the root.

Category III : Disyllabic

Both intransitive and transitive

badla- 'change', opRa- 'uproot',
olTa- 'overturn', othla- 'overflow',
palTa- 'change' etc.

Let us now illustrate the categories.

9. a) glasTa bhaNlo
glass-Det. break-Past-3rd.
'the glass broke'.
- b) ami glasTa bhaNlam
I glass-Det. break-Past-1st.
'I broke the glass.'

10. a) OboSeSe dOrja khullo
 at last door open-Past-3rd.
 'At last the door opened.
- b) OboSeSe ami dOrja khullam
 at last I door open-Past-1st.
 'At last I opened the door'.

In surface syntax *glasTa* 'the glass' is the subject of the sentence 9 (a) and *dOrja* of 10 (a). Both of them are the objects of the transitive sentences 9 (b) and 10 (b) respectively. So far as the role is concerned we find that *glasTa* plays the same role in 9 (a) as in the corresponding sentence 9 (b). Similarly, *dOrja* plays the same role in 10 (a) as in the corresponding 10 (b). Thus they play the same θ -role — Theme or Patient in each pair. Moreover, the verbs do not alter their formal shape in the transitive form. Let us again look at the following sentences in which *baj* 'blow' and *nac* - 'dance' (intransitive primary verbs) have different forms in their transitive use.

11. a) ey baRite roj SaMkh baje
 this house-Loc. everyday conch blow-Pres. 3rd.
 "Everyday a conch blows in this house."
- b) ey baRite ami roj SaMkh bajay
 this house-Loc. I everyday conch blow-Pres-1st.
 "Everyday I blow a conch in this house".

In addition to the different grammatical functions of the inanimate noun *SaMkh* in 11 (a) and in 11 (b), there is also a morphological marking realised by a cross referencing on the verb in 11 (b). Further, we should notice that the thematic roles of *SaMkh* in 11 (a) as well as in 11 (b) are the same¹. Similar grammatical and thematic roles are exhibited in the following pair of sentences :

12. a) putul nacche
 doll is dancing
 'A doll is dancing'.

- b) lokTi putul nacacche
 man-Det. doll causing to dance
 'The man is causing a doll to dance'.

As an example of the third category of verbs mentioned earlier we can consider the following pair of sentences :

13. a) glasTa olTalo
 glass-Det. overturn-Past-3rd.
 'The glass overturned'.
- b) Ram glasTa olTalo
 Ram glass-Det. overturn-Past-3rd.
 'Ram overturned the glass'.

The same expression *glasTa* - 'the glass' being used with the verb *olTa* 'overturn' acts as the intransitive subject in 13 (a) and as the transitive object in 13 (b).

In this context we can refer to J. M. Anderson's recent observation on the Indo-European languages :

"The discrepancy in the Indo-European languages between different genders as to whether nominative and accusative are distinguished in expression - may be a reflection of an earlier ergative system (neuters typically not functioning as transitive 'subjects' " (Asher 1994 : 450).

The situation of Bangla appears to validate this observation.

Note

- 1 In this connection, we can mention that the concept of *Karmakartṛvācya* (Reflexive voice) of Bengali grammar (Chatterji, 1971 : 318) does not differentiate grammatical roles from thematic roles Ghosh (1993 : 38) rightly points out that the voice of such sentences should be identified as active and not reflexive

Transcription

N : velar nasal

M : Nasalisation

References

- Asher, R E 1994. *The Encyclopedia of Language and Linguistics*, Vol. 2. Pergamon Press.
- Chatterji, S K. 1971. *Saral Bhāsā - prakāś Baṅgālā Vyākaraṇ*. Vak - Sahitya Private Limited, Calcutta.
- Dixon, R M. W 1979. Ergativity. *Language*, 55 : 59-138.
- Ghosh, M 1993. *Bangla Banan* (A book on Bengali spelling). Dey's publishing, Calcutta
- Jacobsen, B 1977. *Transformational - Generative Grammar*. Second, revised edition 1978 North Holland Publishing Company.
- Lyons, J 1968 *Introduction to Theoretical Linguistics* Cambridge University Press.
- (ed) 1970. *New Horizons in Linguistics*. Penguin Books.
- Ratford, A 1988 *Transformational Grammar*. Cambridge University Press